Santa Clara Valley Water District





42nd Annual Report

FY 2013-14

Protection and Augmentation of Water Supplies

February 2013

5750 Almaden Expressway, San Jose, CA 95118-3614 | (408) 265-2600 | www.valleywater.org

The mission of the District is to provide for a healthy, safe, and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective, and environmentally sensitive manner for current and future generations.

Santa Clara Valley Water District

February 22, 2013

Dear water district stakeholder:

The Santa Clara Valley Water District has released its 42nd Annual Report on the **Protection and Augmentation of Water Supplies**, which documents the water district's efforts to ensure a reliable water supply for Santa Clara County. The report presents the basis for the recommended groundwater production charges for fiscal year (FY) 2013-14 and is posted on our website, www.valleywater.org.

To provide transparent information, the report is published and filed prior to the water district holding public hearings on the groundwater production charges. Groundwater replenished by the water district makes up, on average, two-thirds of the water used by residents, businesses and municipal and retail water providers countywide.

With revenue from groundwater production charges, the water district protects and augments water supplies for the health, welfare and safety of the community. The activities, programs and services undertaken with funding from groundwater production charges includes:

Water supplies
- Operate and maintain local reservoirs to capture water and fill recharge ponds
- Purchase imported water to replenish the groundwater basin

Water quality
- Monitor and protect groundwater from pollutants
- Ensure proper construction and destruction of wells to prevent contaminants from infiltrating the groundwater basin

Infrastructure
- Plan and construct improvements to dams, pipelines, ponds, treatment plants and pump stations
- Operate and maintain pipelines and pumping plants to help sustain the groundwater aquifer

The water district is proposing rate increases in its two groundwater zones for FY 2013-14 as follows:

North County Zone W-2 Municipal and Industrial up to 9.3%, average household increase of $2.00 per month
South County Zone W-5 Municipal and Industrial up to 3.4%, average household increase of $0.34 per month
Surface water users in North County up to 9.6%, average household increase of $2.09 per month
Surface water users in South County up to 4.1%, average household increase of $0.44 per month
Ag groundwater users in either zone up to 3.4%, or about $0.10 per month per acre
Ag surface water users in either zone up to 10.9%, or about $0.55 per month per acre

The water district must invest significant capital dollars into repairing and rehabilitating the infrastructure that keeps water flowing uninterrupted to your tap. We estimate that it would cost $4.3 billion to replace the dams, treatment plants, pipelines, pump stations and recharge ponds that comprise the system behind your water supply. We plan to invest nearly $1 billion over the next 10 years to ensure that critical repair needs of the system are addressed,this includes investing in our dams to meet seismic safety standards.

The rate increases reflect the water district's contribution to a statewide effort to find a long term fix to the Delta, through which roughly 40 percent of our water supply is conveyed. Without investments in the Bay Delta Conservation Plan, the Delta's sensitive ecosystem and water transport system will continue to deteriorate, threatening that vital supply of water to the county. The increase in rates is necessary to bring in the revenue needed to cover operating cost increases and pay for critical capital projects that will help ensure adequate water supply to well owners in Santa Clara County.

I encourage you to learn more about these important groundwater issues. In addition to the information on our website at www.valleywater.org, the following opportunities are also available for you to gather information and provide input:

April 9, 2013 9:00 a.m. • Board meeting • Time certain	Public hearing (opens) Santa Clara Valley Water District 5700 Almaden Expwy., San Jose
April 9, 2013 6:00 p.m. - open house 7:00 p.m. - board meeting	Public hearing and open house Morgan Hill Community and Cultural Center 17000 Monterey Road, Morgan Hill
April 23, 2013 9:00 a.m. • Board meeting • Time certain	Public hearing (closes) Santa Clara Valley Water District 5700 Almaden Expwy., San Jose

If you have questions or concerns about groundwater, this year's charge-setting process, or how we can better serve you, please join us at an upcoming open house or public hearing, or visit our website, www.valleywater.org. You may also contact us directly by phone at (408) 265-2600, or email at clerkoftheboard@valleywater.org

Sincerely,



Beau Goldie
Chief Executive Officer

Protection and Augmentation of Water Supplies

42nd Annual Report 2013-2014

Sections

1 Present Water Requirements and Water Supply Availability

2 Future Water Requirements and Water Supply Availability

3 Programs to Sustain Supply Reliability

4 Financial Outlook of Water Utility System

5 Appendices

Prepared Under the Direction of:
Jim Fiedler
Chief Operating Officer, Water Utility Enterprise

Contributors:
Terri Anderson
Behzad Ahmadi
Linda Arluck
Erin Baker
Tracy Broadway
Gerald De La Piedra
Vanessa De La Piedra
Hemang Desai
Beth Dyer
Tracy Hemmeter
Cindy Kao
Bassam Kassab
Michele Keefhaver
Mala Magill
Joan Maher
Frank Maitski
Mark Merritt
Judy Nam
James O'Brien
Eric Olson
Debra Osikominu
Katherine Oven
Miguel Silva
Lisa Stine
Darin Taylor

Board of Directors:
Nai Hsueh – District 5, Chair
Tony Estremera – District 6, Vice Chair
Dennis Kennedy – District 1
Barbara Keegan – District 2
Richard P. Santos – District 3
Linda J. LeZotte – District 4
Brian Schmidt – District 7

Graphic Design:
Graphic Services
Benjamin Apolo III
Joy O. Lim
Marty Grimes

Cover photos:
Photo on left - Silicon Valley Advanced Water Purification Center
Photo on right - Main Avenue Ponds facing northward

Introduction

This is the 42nd annual report on the Santa Clara Valley Water District's activities in the protection and augmentation of water supplies. This report is prepared in accordance with the requirements of the District Act, section 26.5.

1 **Section 1**
Provides information on the present water requirements and water supply availability;

2 **Section 2**
Addresses future water requirements and water supply availability;

3 **Section 3**
Discusses programs needed to sustain water supply reliability into the future;

4 **Section 4**
Provides the financial analysis of the water district's water utility system, including future capital improvement and maintenance requirements, operating requirements, financing methods and the recommended groundwater production and other water charges by zone for fiscal year 2013-2014.

In FY 2013-14 the water district is proposing up to a 9.3 percent increase in the municipal and industrial (M&I) groundwater production charge for the North County and up to a 3.4 percent increase for South County. For M&I surface water users the water district is proposing up to a 9.6 percent increase for North County and up to 4.1 percent for South County. The water district is proposing up to an 3.4 percent increase for agricultural groundwater users and up to 10.9 percent for agricultural surface water users in either zone. These increases are necessary for critical capital program needs, including dam seismic retrofits.

We take our role as stewards of public funds very seriously. These proposed increases come after the district has reduced 107 jobs, reduced overtime by 50 percent, and reduced employee benefits.

In 2012, much of the groundwater pumped countywide, came from water imported from the Sierra Nevada Mountains through the Sacramento-San Joaquin River Delta.

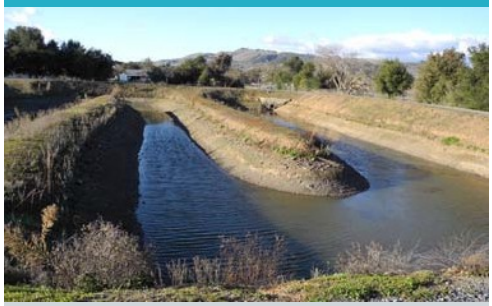
The water district imports this water and then uses it in part to replenish the groundwater basins for a reliable water supply. In addition, roughly 115,000 acre-feet of water used by households and businesses throughout the northern part of the county is treated and disinfected at the water district's treatment plants. Providing treated water supplements and helps preserve groundwater. Without the water district's actions to augment local supplies and replenish and preserve the groundwater aquifer, groundwater levels would decline, wells would run dry and permanent land subsidence (sinking of the ground) would occur again.

What do Groundwater Production Charges pay for?

What you get	What we do
Benefits • Reliable, healthy and clean drinking water • Diverse water supply sources • Protected and sustained water resources • Maximized water conservation and recycling	**Replenish the groundwater basin** • Operate and maintain local reservoirs to capture water and fill recharge ponds. • Purchase imported water. **Ensure safe drinking water** • Monitor and protect groundwater from pollutants. • Ensure proper construction and destruction of wells. **Construct, maintain and repair** • Plan and construct improvements to infrastructure such as dams, pipelines, ponds, treatment plants and pump stations. • Operate and maintain pipelines and pumping plants to help sustain the groundwater aquifer.



Local water



A complex network of reservoirs, creeks and specialized ponds replenishes the groundwater basin. The same system is also used to transport imported water so that it, too, can be used to replenish the aquifer. It all works so well that "managed" recharge actually exceeds natural recharge. Water pumped from the groundwater basin through wells is used by private well owners, farmers and water retailers. Some water captured in reservoirs is processed at state-of-the art drinking water treatment plants. The treated water is sold to local water retailers, such as San Jose Water Company, who use their own distribution systems to serve customers.

Imported water



Much of the county's current water supply comes from hundreds of miles away, first as snow or rain in the Sierra Nevada range of northern and eastern California, then as water in rivers that flow toward the Sacramento-San Joaquin River Delta. This "imported water" is brought into the county through the complex infrastructure of the State Water Project, the federal Central Valley Project and San Francisco's Hetch Hetchy system. Three drinking water treatment plants deliver imported water to customers, while the rest is used to replenish groundwater basins. Having treated imported water available to meet demands protects the groundwater basin from over pumping.

Recycled water



An important and growing source of water is recycled water. Used primarily for irrigation by industry and agriculture, recycled water is wastewater that has been purified to meet strict standards set by the California Department of Health Services. Using recycled water helps conserve drinking water supplies, provides a dependable, drought-proof, locally-controlled water supply, reduces dependency on imported water and groundwater and helps preserve our saltwater and tidal habitat by reducing freshwater discharge to the bay.

More than 20 years of water planning

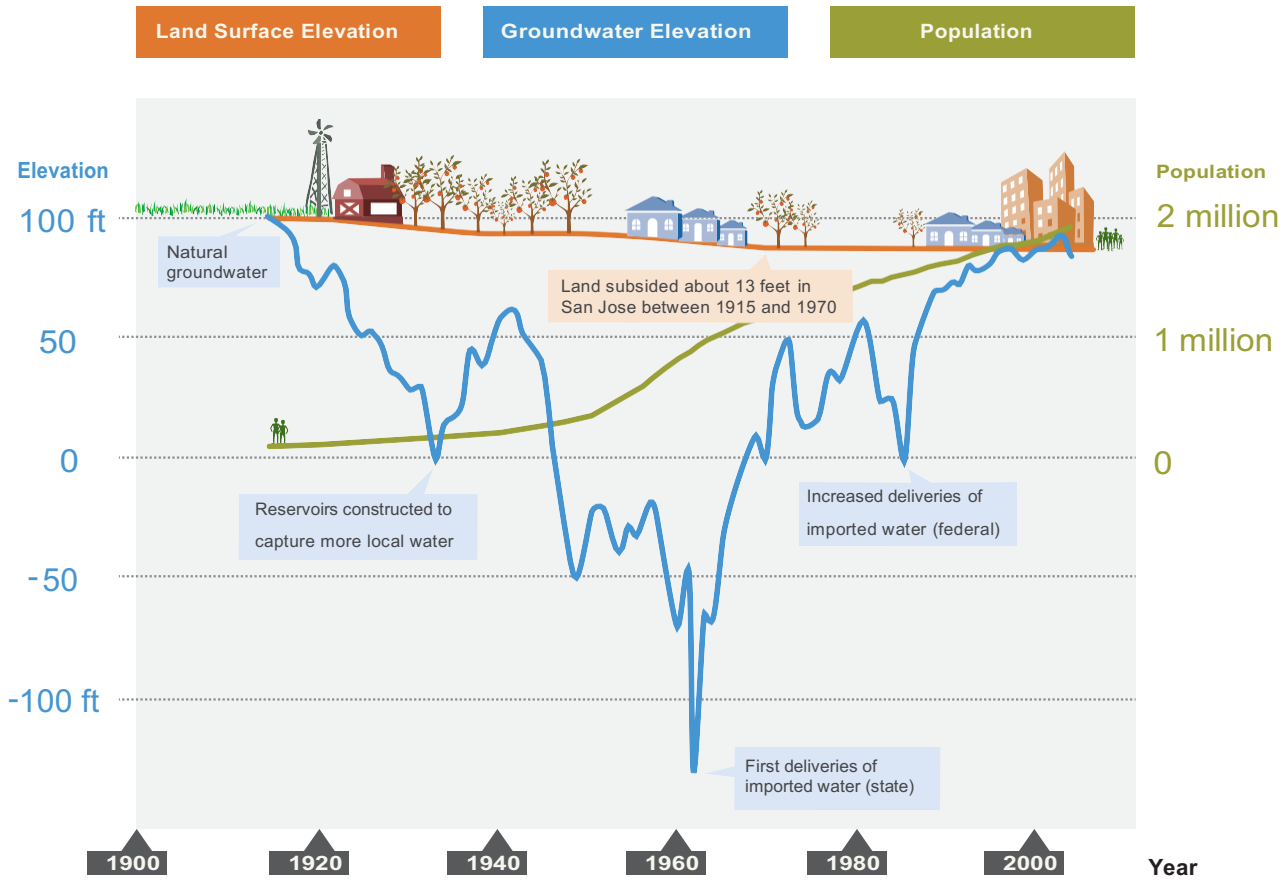
Since the last extended drought, the water district has invested in a diverse water portfolio as a strategy to buffer impacts from shortages, maintain water in the groundwater aquifer and provide a reliable supply.

These investments lessen the magnitude of critical shortages in supplies due to hydrologic conditions and regulatory actions.



SANTA CLARA COUNTY GROUNDWATER AT-A-GLANCE

a graphic representation not intended as a technical exhibit



Over the years, the water district's water importation and groundwater management activities have stabilized groundwater levels and prevented land subsidence, or sinking.

Estimated 2012 total county water supply

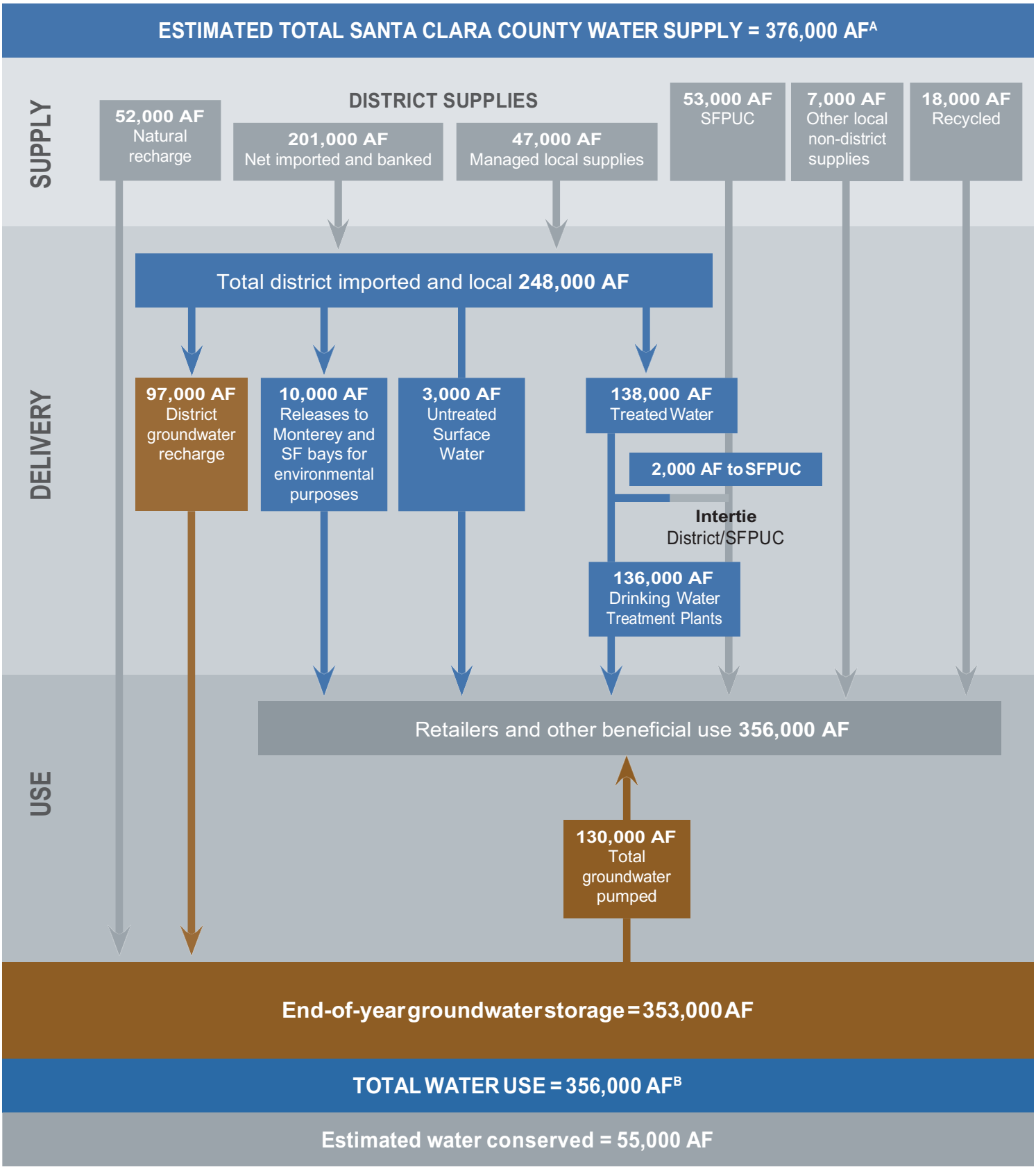
The chart at right shows calendar year 2012 estimated total water supply for Santa Clara County.
Water from our 10 local reservoirs and water imported from the federal Central Valley Project and State Water Project is:

- Used to replenish local groundwater basins, which are pumped for use by individual well owners, municipal and retail water providers
- Sent to the district's three drinking water treatment plants for purification
- Supplied directly to water retailers
- Released to meet environmental needs and regulations

Non-district supplies in the county include rainfall recharge; water from San Francisco's Hetch Hetchy system; and private water rights. Note: stored groundwater is not included in the overall supply figure. For more detail on sources of supply, see Section 1.

Acre-foot: About 326,000 gallons, the amount used by two families of five over one year.

Calendar Year 2012



[A] Includes net district and non-district surface water supplies and estimated rainfall recharge to groundwater basins.

[B] Includes municipal, industrial, agricultural and environmental uses.

WATER RATES

		Dollars Per Acre Foot		
	Basic User/Groundwater Production Charge	**FY 2011-12**	**FY 2012-13**	**Recommended FY 2013-14**
Zone W-2 (North County)	Municipal and Industrial	569.00	622.00	680.00
	Agricultural	17.10	17.70	18.30
	Surface Water Charge			
	Surface Water Master Charge	12.17	12.60	15.31
	Total Surface Water, Municipal and Industrial*	581.17	634.60	695.31
	Total Surface Water, Agricultural*	29.27	30.30	33.61
	Treated Water Charges			
	Contract Surcharge	100.00	100.00	100.00
	Total Treated Water Contract Charge**	669.00	722.00	780.00
	Non-Contract Surcharge	50.00	50.00	75.00
	Total Treated Water Non-Contract Charge***	619.00	672.00	755.00

	Basic User/Groundwater Production Charge	**FY 2011-12**	**FY 2012-13**	**Recommended FY 2013-14**
Zone W-5 (South County)	Municipal and Industrial	285.00	295.00	305.00
	Agricultural	17.10	17.70	18.30
	Surface Water Charge			
	Surface Water Master Charge	12.17	12.60	15.31
	Total Surface Water, Municipal and Industrial*	297.17	307.60	320.31
	Total Surface Water, Agricultural*	29.27	30.30	33.61
	Recycled Water Charges			
	Municipal and Industrial	275.00	275.00	285.00
	Agricultural	41.50	41.50	42.10

*Note: The total surface water charge is the sum of the basic user charge (which equals the groundwater production charge) plus the water master charge.

**Note: The total treated water contract charge is the sum of the basic user charge (which equals the groundwater production charge) plus the contract surcharge.

***Note: The total treated water non-contract charge is the sum of the basic user charge (which equals the groundwater production charge) plus the non-contract surcharge.

The water district is proposing groundwater production charge increases of up to 9.3 percent for North County Municipal and Industrial (M&I) well owners, and up to 3.4 percent for South County. For agricultural groundwater users, the water district is proposing up to 3.4 percent increase in either zone. For surface water users, the water district is proposing increases up to 9.6 percent for North County M&I water users, up to 4.1 percent for South County M&I water users, and up to 10.9 percent for agricultural surface water users. The increases are necessary to cover operating expenses and fund critical capital program needs, including dam seismic retrofits. We have downsized the district's workforce by roughly 13 percent. Even so, an increase in rates is necessary to help ensure adequate water supply to Santa Clara County. The recommended charges are shown in the right-hand column of the chart above.

1 2013 PAWS REPORT
Present Water Requirements and Water Supply Availability

1-1 WATER SUPPLY OVERVIEW

The mission of the Santa Clara Valley Water District (water district) is to provide for a healthy, safe, and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective, and environmentally-sensitive manner for current and future generations. Accordingly, staff employs an integrated approach to manage a sustainable water supply through conjunctive use of surface water and groundwater resources and maximizing water use efficiency.

Water supply is comprised of "incoming" supplies from local and imported sources, as well as previously-stored supplies withdrawn from in-county and/or out-of-county surface water and groundwater storage.

Local Supplies

Local groundwater resources make up the foundation of water supply in Santa Clara County, but they need to be augmented by the water district's comprehensive water supply management activities in order to reliably meet the needs of county residents, businesses, agriculture and the environment. These activities include direct and in-lieu groundwater recharge through the provision of treated surface water, acquisition of supplemental water supplies, and programs to protect, manage and sustain water resources.

The bulk of the local water supplies originate from runoff from precipitation, captured in local reservoirs and released for groundwater recharge and for treatment at the treatment plants. Some of the precipitation infiltrates and recharges the groundwater basins, although this natural recharge is insufficient to fully replenish groundwater extracted from the basins.

An additional local water supply is highly-treated recycled water used for non-potable purposes. Use of recycled water offsets demand for potable water and serves as in-lieu recharge.

Imported Supplies

The water district's imported sources of supply originate from natural runoff and releases from statewide reservoirs and pumped out of the Sacramento-San Joaquin Delta by the State Water Project (SWP) and the federal Central Valley Project (CVP). The annual allocations of contracted supplies from the SWP and CVP are subject to cutbacks due to dry hydrologic conditions and to Delta pumping restrictions. The water district may also hedge against shortages by taking deliveries of available temporary flood flows from the Delta early in the year, before imported water contract allocations and local hydrology are known. Another remedy for shortages is through the purchase of transfer water or exchanges. Most of the imported water delivered by the SWP and CVP is sent to the water district's three water treatment plants and to supplement groundwater recharge. The treated water is sold to eight of the 13 water retailers located within Santa Clara County to offset groundwater pumping.

Additionally, eight water retailers purchase water from the City and County of San Francisco that originates from the Tuolumne River watershed and watersheds in the Bay Area. Without these supplemental supplies, groundwater pumping would exceed sustainable groundwater extraction levels.

Conjunctive Use Management

Since the 1930s, the water district's water supply strategy has been to coordinate the use of surface water and groundwater to maximize water supply reliability. The 2012 Groundwater Management Plan, adopted by the water district Board of Directors (board) in July 2012, describes the water district's conjunctive use activities, as well as basin management objectives, strategies, and related outcome measures.

Although the groundwater basins are the water district's largest water storage facility, the limiting factor of providing a reliable water supply in drought periods is the overall capacity and capability to operate a conjunctive use system of surface and groundwater supplies. Most of the local reservoirs were sized for annual operations, storing water in winter for release to groundwater recharge in summer and fall. The exception is the Anderson-Coyote reservoir system, which provides valuable carryover of supplies from year to year and can serve as a backup supply source to the water district's water treatment plants when imported water deliveries are curtailed. However, dam safety operating restrictions placed recently on Anderson, Coyote, Almaden, Calero and Guadalupe reservoirs have resulted in loss of about a third of the total surface storage capacity (as shown in Table 1-1.1) as well as significant loss of water supply yield.

Table 1-1.1 Original and Restricted Capacities of Major Water District Reservoirs

Reservoir	Year Built	Reservoir Capacity (acre-feet)	Restricted Capacity (acre-feet)	Use
Anderson*	1950	90,373	61,810	Recharge & treated
Chesbro	1955	7,945	7,945	Recharge
Guadalupe*	1935	3,415	2,218	Recharge
Stevens Creek	1935	3,138	3,138	Recharge
Vasona	1935	495	495	Recharge

As part of its annual operations planning, the water district routinely opts to carry over a portion of its imported water supplies from one contract year to the next. Even though the amount is often limited by state or federal project operations, it provides cost-effective insurance against a subsequent dry year. Additionally, the water district has invested in a water banking program at the Semitropic Water Storage District which provides 350,000 acre-feet of out-of-county water storage capacity. Together with water transfers and exchanges, this additional storage helps the water district manage uncertainty and variability in supply as each water year develops.

Managing a complex system of surface water and groundwater resources is further complicated by hydrologic uncertainties, regulatory restrictions and aging infrastructure, as discussed in the following sections of this report.

1-2 PRESENT WATER SUPPLY CONDITIONS

In January and February of 2012, hydrologic conditions remained dry. In addition, pumping restrictions in the Delta due to ongoing fishery concerns further reduced water deliveries. Fortunately, the previous water yea.[1] was quite wet, and at the end of September 2011, reservoir storage volumes in Lake Oroville, Shasta Lake, and Folsom Lake had been 137, 115, and 155 percent of average, respectively. However with very little precipitation, storage alone was not enough to support the initial SWP allocation of 60 percent, and in late February, Department of Water Resources (DWR) Director Mark Cowin cited "stubbornly dry conditions" as the reason for a rate reduction in allocation, to 50 percent. Conditions improved through a series of March storms, and the final SWP allocation was increased to 65 percent. When announcing the initial CVP allocation in February, Mid-Pacific Regional Director Don Glaser stated, "Hydrologically, 2012 is shaping up to be a challenging year. December, traditionally one of our wettest months, ended up being one of the driest on record." The final CVP allocations were 40 percent for south-of-delta agricultural (AG) purposes; the corresponding municipal and industrial (M&I) allocation for the District was 75 percent. Table 1-2.1 summarizes the year types and final allocations from the SWP and CVP for the last five water years.

Table 1-2.1 Statewide Water Year Types and Final Imported Water Allocations

Water Year[1]	Year Type		Final allocations to the water district as % of contract amounts		
	Sacramento River	San Joaquin River	SWP	CVP	
				M&I	AG
2007–08	critical	critical	35%	75%	40%
2008–09	dry	below normal	40%	60%	10%
2009-10	below normal	above normal	50%	75%	45%
2010-11	wet	wet	80%	80%	80%
2011-12	below normal	dry	65%	75%	40%

[1] Water year is the twelve month period between October 1 and September 30.

Locally, rainfall for the 2011–12 season[2] at downtown San Jose was at 45 percent of average[3]. Combined storage at water district reservoirs at the end of the 2011–12 water year was at 40 percent of capacity.

The 2012–13 water year began with a wet fall, especially December. Statewide precipitation by December 31, 2012 was at 135 percent of seasonal average to date. Statewide snow water equivalent for the same period was at 135 percent too. Runoff and storage at key reservoirs were at 150 and 105 percent of seasonal average, respectively. January 2013 was dry. With a few more months to go in the rainy season, it is unclear what type of water year 2012–13 will turn out to be.

Locally, November and December were very wet months and January 2013 was a very dry month. Local rainfall as of February 1, 2013 ranges from 101 percent of seasonal average to date in San Jose to 115 percent in the Coyote watershed. Total storage at water district reservoirs as of February 1, 2013 was 53 percent of capacity. However, because of storage restrictions in place for half of the water district reservoirs, the combined storage was at 72 percent of the reduced capacity. Total storage at water district reservoirs was 87 percent of 20 year average.

While reservoirs are a visible indicator of our local water supply, the majority of our local reserves lie hidden beneath our feet in the groundwater aquifers. Because the groundwater basins can store two times more water than all of the local surface water reservoirs combined, the water district strives to maintain adequate storage in the groundwater basins in wet and average years to get through extended dry periods like the three dry years of 2007-2009. The water district increased managed recharge to help offset higher groundwater pumping in 2012 compared to 2011.

Groundwater elevations at three index wells (see locator map in Figure 1-2.1), as indicators of groundwater trends and conditions, are shown in Figures 1-2.2 through 1-2.4. Overall groundwater conditions are healthy, with a similar estimated end of year groundwater storage levels compared to 2011, as shown in table 1-2.2. A more detailed evaluation of groundwater conditions will be presented in the water district's annual groundwater management report, which will be completed in June and will include reporting on outcome measures related to groundwater storage, levels, quality, and land subsidence.

[2] Rainfall season or year is the twelve month period between July 1 and June 30, same as fiscal year.
[3] Rainfall at San Jose (station 86) was approximately 6.5 inches or 45 percent of average for the rainfall season from July 1, 2011 to June 30, 2012.

Figure 1-2.1 Map of Index Well Locations

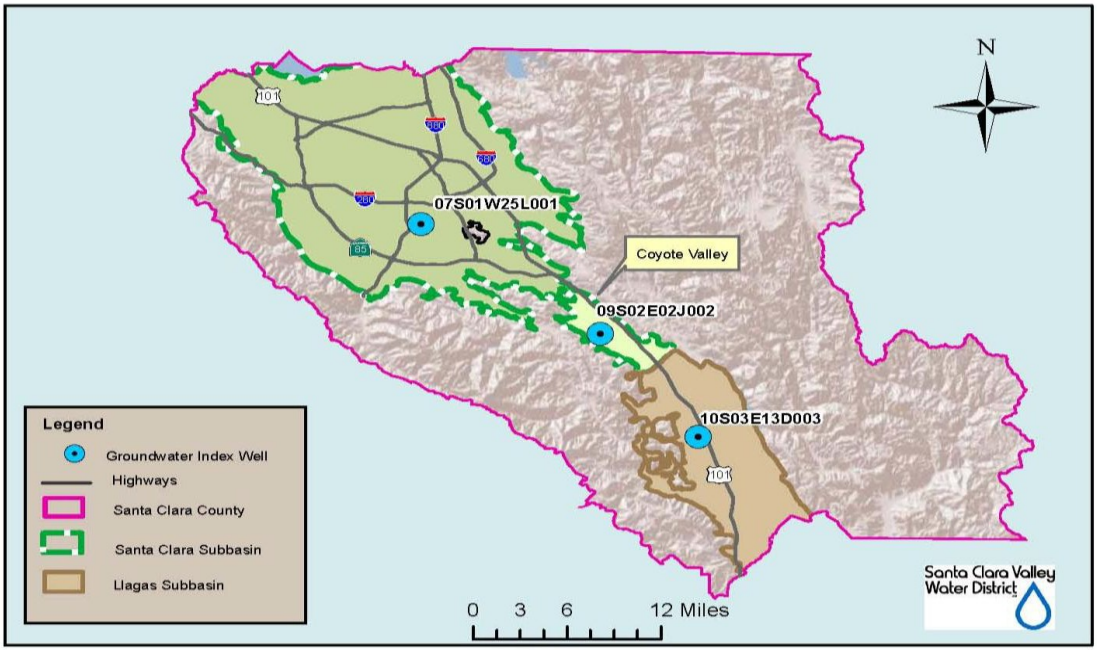


Figure 1-2.2 Historical Santa Clara Subbasin Groundwater Elevations, Index Well 07S01W25L001.

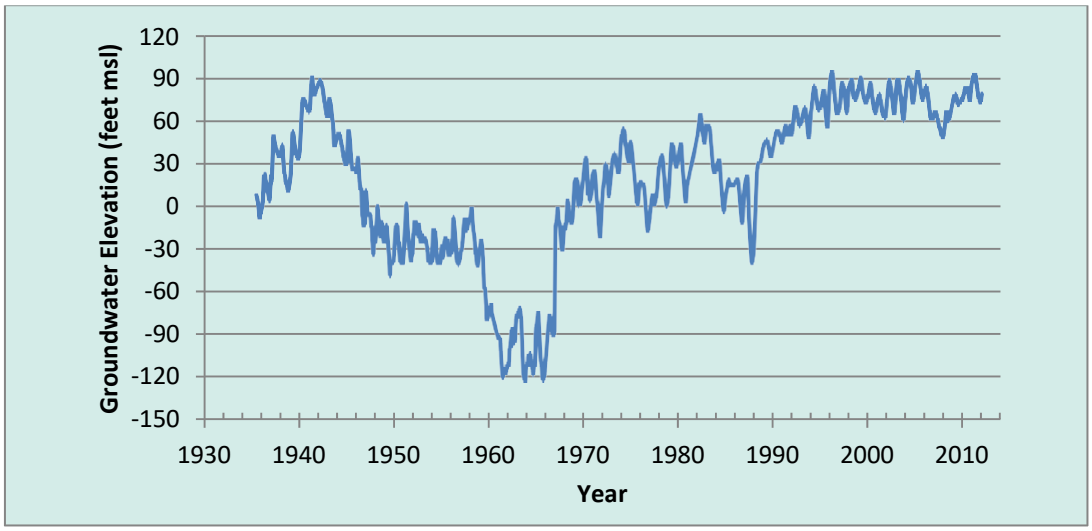


Figure 1-2.3 Historical Coyote Valley Groundwater Elevations, Index Well 09S02E02J002

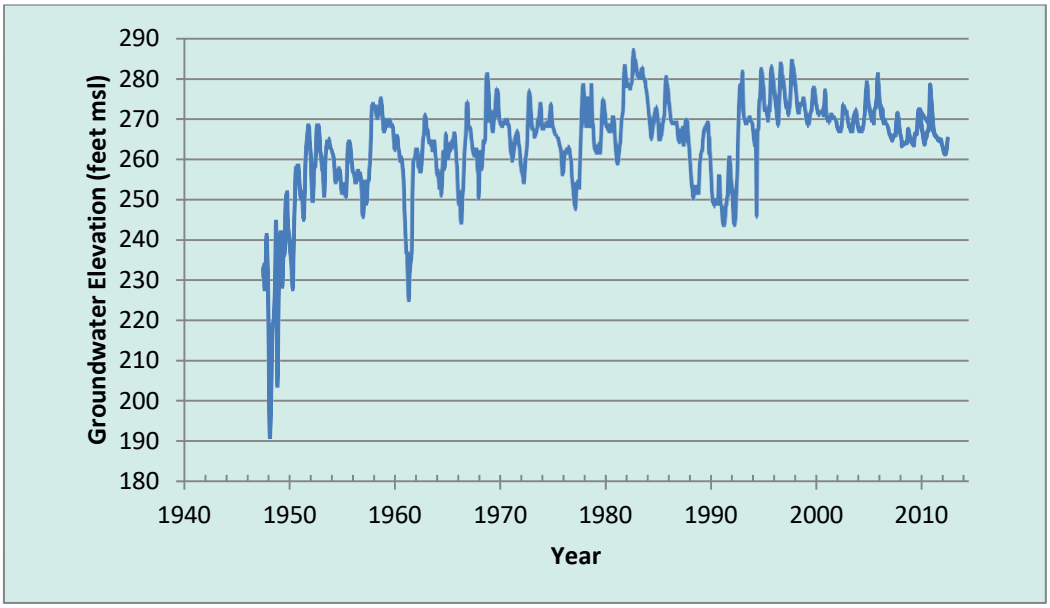


Figure 1-2.4 Historical Llagas Subbasin Groundwater Elevations, Index Well 10S03E13D003

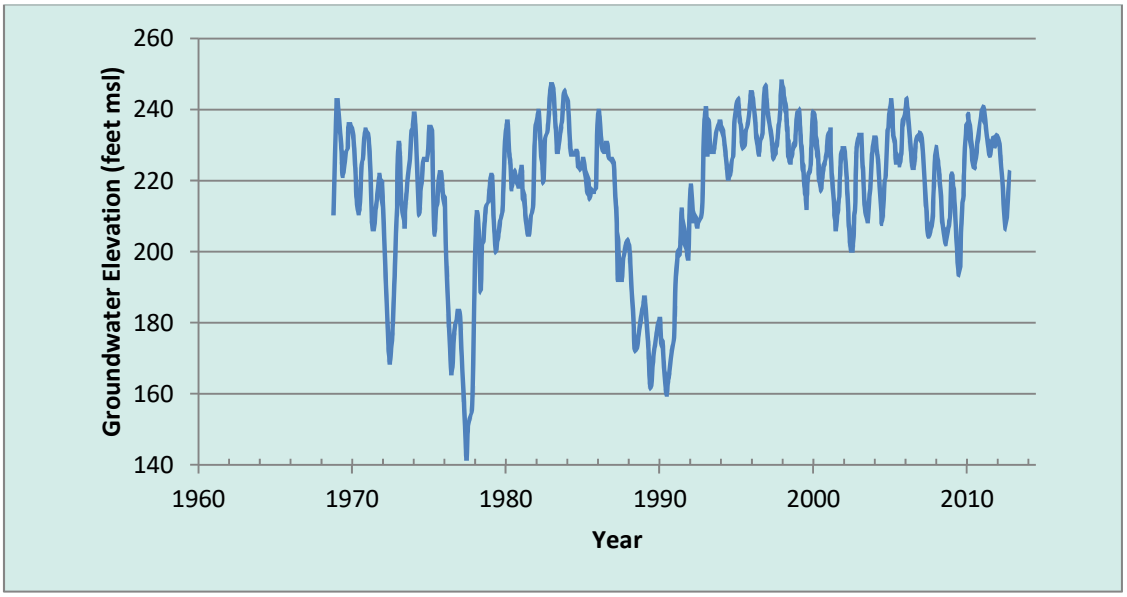


Table 1-2.2 End-of-Year Groundwater Storage and Change in Storage

	Cumulative Groundwater Storage Estimates AF (acre feet)		
	End of Year 2011	End of Year 2012	Change in Storage AF
Santa Clara Subbasin, Santa Clara Plain	302,500	303,200	700
Santa Clara Subbasin Coyote Valley	12,700	12,700	0
Llagas Subbasin	37,400	36,900	-500
Total	**352,600**	**352,800**	**200**

1-3 PRESENT WATER USE AND WATER REQUIREMENTS

Water demands, which continue to rebound from the recent drought and recession, increased by roughly 5 percent in 2012. Despite this increase, the district was able to meet its water use demands without having to call for short-term demand reductions. Supplemental imported water from transfers, exchanges and groundwater banking brought an additional 41,600 acre-feet into the County to meet 2012 demands.

To meet current and future demands the District continues to implement its long-term water conservation program. With a target of saving nearly 100,000 acre-feet per year by 2030, the long-term program offers a variety of incentives and rebates that achieve sustainable water savings. The program saved approximately 55,400 acre-feet in 2012.

Table 1-3.1 shows unadjusted historical water use in Santa Clara County and Table 1-3.2 shows a breakdown of groundwater production and managed recharge by water charge zone. Table 1-3.3 shows a historical summary of surface water supply, use and distribution for the last three years.

Table 1-3.1 Historical Water Use in Santa Clara County for Calendar Years 2010-2012

Historical Calendar Year Water Use	In Acre-feet		
	Actual 2010	Preliminary 2011	Estimated 2012 *
Groundwater Pumped	136,930	123,670	129,800
Treated Water	108,200	122,320	136,300
Raw Surface Water Deliveries	3,080	2,760	3,000
SFPUC Supplies to Local Retailers[1]	49,690	50,080	52,500
SJWC[2] and Stanford Water Rights	16,850	16,580	7,400
Recycled Water	14,720	14,740	17,600
Total	329,470	330,150	346,600

[1] San Francisco Public Utilities Commission supplies to 8 retailers and NASA-AMES
[2] San Jose Water Company
* Estimated 2012 rounded to the nearest hundred

Table 1-3.2 Groundwater Production and Managed Recharge by Water Charge Zone

Charge Zone	Zone W-2					Zone W-5				
	Groundwater Production, acre-feet			Managed Recharge		Groundwater Production, acre-feet			Managed Recharge	
Year	Agricultural	Non-Agricultural	Zone Total	Zone Total Recharge, acre-feet	Managed Recharge as % Production	Agricultural	Non-Agricultural	Zone Total	Zone Total Recharge, acre-feet	Managed Recharge as % Production
1997	1,910	118,550	120,460	78,040	65%	32,746	21,710	54,456	32,120	59%
1998	1,101	99,210	100,310	66,670	66%	25,861	20,009	45,870	26,130	57%
1999	1,087	106,403	107,490	80,900	75%	29,144	23,767	52,910	26,500	50%
2000	972	112,399	113,371	88,400	78%	26,920	24,537	51,457	30,200	59%
2001	752	114,606	115,358	84,620	73%	28,510	25,437	53,947	32,040	59%
2002	707	103,952	104,659	71,660	68%	27,537	23,787	51,324	35,300	69%
2003	447	96,208	96,656	74,200	77%	25,964	24,256	50,220	35,000	70%
2004	579	105,137	105,716	66,700	63%	27,634	25,533	53,167	31,000	58%
2005	826	86,640	87,467	69,200	79%	25,458	25,237	50,695	32,500	64%
2006	429	82,195	82,624	65,770	80%	24,420	28,616	53,036	30,440	57%
2007	1,087	108,748	109,835	58,000	53%	27,660	31,424	59,084	33,410	57%
2008	1,074	106,579	107,653	51,290	48%	28,183	33,520	61,703	36,100	59%
2009	608	97,242	97,850	63,000	64%	24,874	32,400	57,274	39,100	68%
2010	437	84,227	84,664	58,540	69%	22,616	29,459	52,075	42,210	81%
Prelim. 2011	298	70,990	71,288	54,820	77%	22,553	29,828	52,381	39,370	75%
Estim 2012	400	75,900	76,300	55,900	73%	22,800	30,700	53,500	40,800	76%

Table 1-3.3 Historical Surface Water Supply, Use and Distribution for Three Previous Calendar Years

	Calendar Year, in Acre Feet		
	Actual 2010	Preliminary 2011	Estimated 2012
District Supplies			
Local Surface Water			
Inflow (net, minus evap)	137,140	191,270	62,230
Releases from(+) or additions to(-) surface water storage	-20,700	+17,460	-15,320
Imported Water			
Prior year carryover	47,930	23,640	19,970
Delta flood flows	0	1,250	0
State Water Project contract allocation	50,000	80,000	65,000
San Felipe Division contract allocation	112,400	123,980	110,740
Semitropic water bank withdrawals	0	0	17,000
Water transfers and exchanges	14,300	5,000	24,570
Returned to District from SFPUC via intertie	430	4,020	0
Total District Supplies:	**341,500**	**446,620**	**284,190**
Distribution of District Supplies			
To groundwater recharge			
Santa Clara Plain (Santa Clara Subbasin)	58,540	54,610	56,700
Coyote Valley (Santa Clara Subbasin)	12,370	10,970	16,910
Llagas Subbasin	29,850	28,390	23,880
To treated water	108,200	122,320	136,350
To surface water irrigation	3,080	2,760	2,980
To environment	33,860	128,360	9,280
To Semitropic water bank	51,990	66,480	0
To imported water carryover			
Used by District	33,810	19,970	26,360
Returned to SWP/CVP	0	0	0
To water transfers and exchanges	8,890	10,000	10,000
Returned to SFPUC via intertie	910	2760	1730
Total Distribution of District Supplies:	**341,500**	**446,620**	**284,190**
Other Supplies			
San Jose Water Co. & Stanford water rights	16,850	16,580	7,400
Recycled water (including District)	14,720	14,740	17,700
SFPUC deliveries to retailers	49,690	50,080	52,500
Total Other Surface Water Supplies	**81,260**	**81,400**	**77,600**
Total Managed Supplies:	**422,760**	**528,020**	**361,790**
Note: Numbers rounded to the nearest 10AF.			

This Page is Left Intentionally Blank

2-1 OVERVIEW

As the water management agency and principal water wholesaler for Santa Clara County, the Santa Clara Valley Water District (water district) is responsible for planning (in collaboration with San Francisco Public Utilities Commission [SFPUC] and local retailers) the water supply of the county to meet current and future demand.

Water supply reliability includes the availability of the water itself as well as the reliability and integrity of the infrastructure and systems that capture, store, transport, treat and distribute it. The water district strives to meet water demand under all hydrologic conditions, including satisfying its treated water contracts for deliveries to the retail water suppliers. As the groundwater manager for the county, the water district's goal is to ensure that an adequate groundwater reserve is available for the future.

Since water supplies available to the county are obtained from both local and imported sources, the water district's water supply is a function of the amount of precipitation that falls both locally and in the watersheds of Northern California. The supply available is also a function of the facilities in place to manage the supply. Sources of water supply in northern Santa Clara County (North County) consist of locally developed and managed water, recycled water, water imported by the water district via the State Water Project (SWP) and the federal Central Valley Project (CVP), and supplies to some of the retail water suppliers from the City and County of San Francisco's regional water system (Hetch Hetchy and Bay Area watersheds). Southern Santa Clara County (South County including Coyote Valley and Llagas Subbasin) is supplied by locally developed and managed water, recycled water, and CVP water.

2-2 PROJECTED FUTURE WATER SUPPLY AVAILABILITY AND DEMAND

Near Term Water Supply Availability

Water district staff begins preparing the water district's Annual Water Supply Operations and Contingency Strategy for the upcoming calendar year in the fall of each year. The strategy is composed of several operations and water supply management scenarios that account for the probable range of water supply conditions that the water district can expect in the upcoming year. These variable conditions include precipitation, locally and in the Sierra, as well as imported supplies. Local precipitation and runoff impact our local reservoir storage, stream flow, and natural recharge of the groundwater basins. The quantity of precipitation in the Sierra and the timing of snowmelt impact the water district's imported water supplies that are conveyed through the Sacramento-San Joaquin Delta. Other factors that impact the water district's water supply include: infrastructure and facility limitations; planned and unplanned facilities outages; contractual obligations; the ability to bring in banked water district supplies from Semitropic Water Storage District; and regulatory, institutional and legal constraints.

As described in section 1 of the report, water year 2012–13 started with a wet fall. The Northern Sierra 8-Station Precipitation Index total from the beginning of October through the end of December of 2012 was 32.8 inches, which is about 185 percent of the seasonal average to date and 66 percent of an average water year. January was

dry, and by February 1, 2013, the precipitation accumulation total was 34.2 inches or 125 percent of the seasonal average and 68 percent of an average water year. It is difficult to predict how the rest of the season will turn out.

Because of the high carryover in the state's large reservoirs, the Department of Water Resources (DWR) announced on December 21, 2012 its initial 2013 allocation of 40 percent of contract amounts for the SWP supply. The U.S. Bureau of Reclamation (USBR) is expected to announce an initial allocation for CVP in February 2013. The initial allocations are subject to change as the water year progresses.

Local surface water supplies have been reduced because of the loss in water district reservoir storage capacity due to regulatory restrictions to address seismic concerns. Water levels at Anderson Reservoir, the largest water district-owned surface reservoir, have been kept low, resulting in loss of about 30 percent of its original storage capacity.

Table 2-2.1 reflects the probable range of local and imported surface water supplies the water district currently expects in calendar year 2013. In conjunction with surface water supplies, groundwater reserves are managed to supplement available supplies during dry periods and to ensure that there are adequate supplies to meet current and future demand. The strategy will be continuously updated throughout the year to account for operations to-date and real-time conditions.

Table 2-2.1 Projected Calendar Year 2013 - Range of Surface Water Supply

Projected Calendar Year 2013 Supply in Acre-Feet Based on 1/15/2013 Forecast		
	Average Year	Dry Year
Imported Water	141,000 - 169,000	129,000 – 159,000
Local Surface Water	46,000	11,000
Total	**187,000 - 215,000**	**140,000 – 170,000**

Long-Term Projected Demand and Water Supply

Water Demand

The Association of Bay Area Governments (ABAG) projected in 2009 that the population of the county will increase to 2,431,300 by the year 2035 compared to the beginning of year 2010 population of 1,880,900. An increasing population and job growth in the area will increase demand for water. Overall, countywide water demand is projected to increase by about 90,000 acre-feet or by more than 25 percent over the next 25 years, compared to year 2010 water use, taking into account implementation of planned water conservation programs. The reduction in water use for the period between the years 2007 and 2011 is likely the result of the combined effects of a lingering economic recession and success of the District's water conservation outreach and coordination efforts with cities, the retailers and the media. The demand projections presented here presume that water use will return to trend by the

year 2015 as the slow economic recovery gains traction. Note that year 2012 demands have increased by approximately 5% compared to year 2011 demands.

Conservation

The water district and most major retail water providers partner in regional implementation of a variety of water use efficiency programs to permanently reduce water use in the county. As shown in Figure 2-2.1, the year 2035 demand with currently planned conservation programs in place is projected to be approximately 423,000 acre-feet.

The long-term savings goal in the water district board-adopted 2010 Urban Water Management Plan (UWMP) is 98,500 acre-feet per year in water savings by 2030. Additionally, recent legislation (Water Conservation Act of 2009) requires all retail water agencies in the state to reduce per capita water use 20 percent by 2020. To achieve these aggressive long-term goals, the water district implements nearly 20 different ongoing water conservation programs that use a mix of incentives and rebates, free device installation, one-on-one home visits, site surveys, and educational outreach to reduce water consumption in homes, businesses and agriculture. These programs are designed to achieve sustainable, long-term water savings and are implemented regardless of water supply conditions.

Through December 2012, the water district has achieved 55,400 acre-feet per year of conservation savings to stay on pace to reach its long-term goal of 98,500 acre-feet per year by 2030. At this pace the region as a whole should meet the state's goal of 20 percent reduction in per capita water use by 2020.

Long-Term Projected Water Supply

Several sources of supply contribute to the water district's ability to meet future demands, including Delta-conveyed imported water supplies, supplies delivered to retailers by the SFPUC, recycled water, local surface water, and natural groundwater recharge.

Delta-conveyed Imported Water

Delta-conveyed imported water deliveries from the SWP and federal CVP have been negatively impacted by significant restrictions on Delta pumping required by the biological opinions issued by the U.S. Fish and Wildlife Service (FWS - December 2008) and National Marine Fisheries Service (NMFS -June 2009), as well as altered hydrologic conditions due to climate change. In the 2009 SWP delivery reliability report, issued in August 2010, there are greater reductions in water deliveries on average when compared to previous reports issued in 2005 and 2007. The average annual SWP delivery is at 60 percent for current and projected future conditions. Over multiple-year dry periods, the average annual SWP delivery is around 35 percent. The average annual CVP delivery is about 70 percent and drops to about 55 percent over the multiple-year dry period. In addition to the impact of reduced annual supplies, the water district could face multiple year cumulative impacts from reduced supplies in the average and wetter years. This would impact the water district's ability to store water either locally or out-of-county as reserves to be used in drier years.

SFPUC

SFPUC supplies to common retailers reduce demands on water district supplies in northern Santa Clara County. Most of the common retailers have supply guarantees from SFPUC that are not expected to change over time.

However, two retailers (the City of San Jose and the City of Santa Clara) have interruptible contracts. San Francisco is scheduled to make a decision about whether to provide supply guarantees to these water retailers by 2018.

Recycled Water

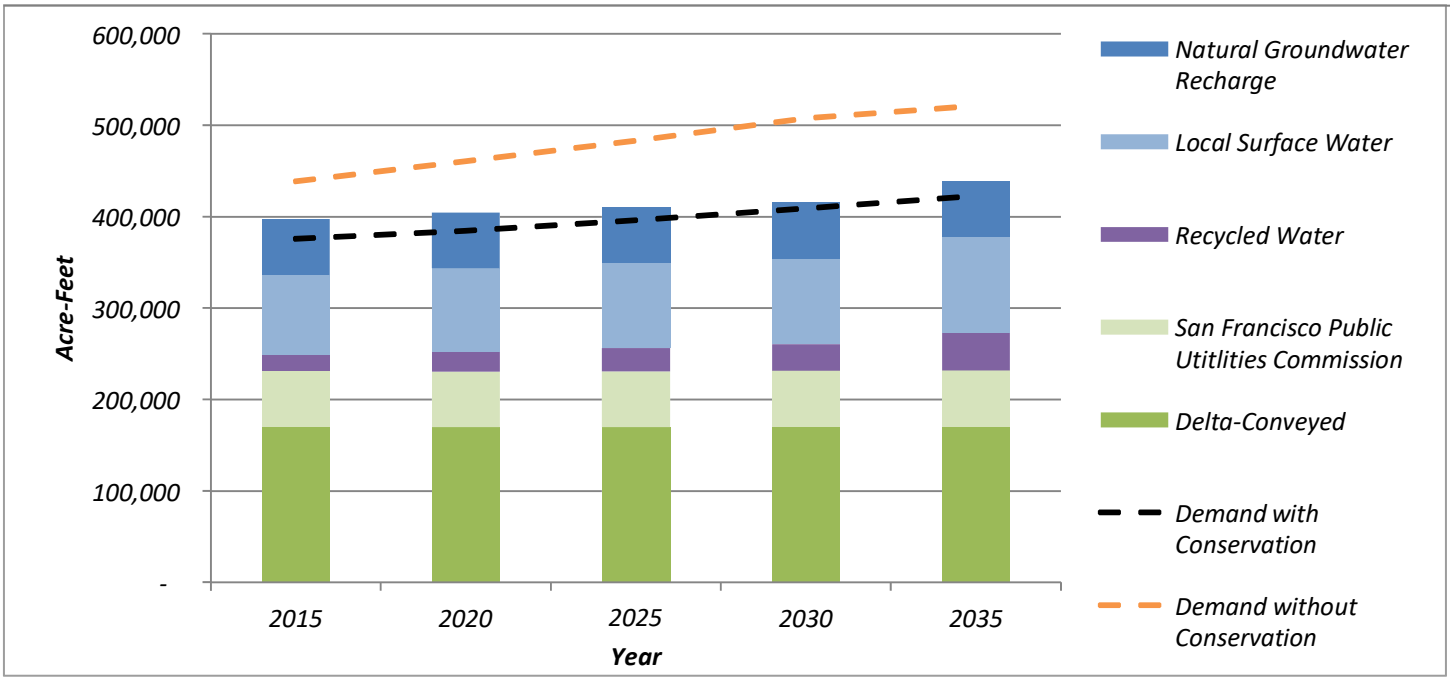
Recycled water use is expected to increase in the long-term. The UWMP projects that approximately 29,200 acre-feet per year of year 2030 demands will be met with recycled water. In addition, the water supply strategy in the board-adopted 2012 Water Supply and Infrastructure Master Plan (Water Master Plan) includes developing another 20,000 acre-feet per year of advanced treated recycled water for potable reuse by 2030. Additional studies and outreach are necessary before the water district can begin project-specific planning.

Local Surface Water and Natural Groundwater Recharge

Local surface water supplies are expected to increase over current levels after the water district completes seismic retrofits on several dams so the dams can be operated at full capacity. In addition, the Water Master Plan calls for constructing and rehabilitating pipelines between reservoirs and groundwater recharge ponds and constructing new groundwater recharge ponds. These new and rehabilitated facilities will increase the water district's ability to use local runoff to meet water demands. Natural groundwater recharge is not expected to change over the planning horizon.

Figure 2-2.1 shows projected average supplies and demands through year 2035. The projection assumes existing supplies and infrastructure are maintained and that the Water Master Plan is fully implemented. In this case, average water supplies will be sufficient to meet future water demands.

Figure 2-2.1 Average Supply & Demand Comparison, Santa Clara County



Reserves

The Water Master Plan also evaluated water supply conditions during multiple dry-year periods (extended droughts). Santa Clara County, like the rest of California, experiences drastic changes in year-to-year annual precipitation. The variation in precipitation, both locally and in the northern California watersheds, results in fluctuations in the amount of water supply available from year to year. In many years, annual supplies exceed demands, while in some years demands can greatly exceed supplies. The water district compensates for this supply variability by storing excess wet year supplies in the groundwater basin, local reservoirs, San Luis Reservoir, or Semitropic Groundwater Bank. The water district draws on these reserve supplies during dry years to help meet demands. These reserves are generally sufficient to meet demands during a critical dry year and the first several years of an extended drought. With full implementation of the Water Master Plan, the district anticipates that supplies would be sufficient to meet at least 90 percent of demands during an extended drought.

2-3 CONCLUSIONS, FINDINGS AND CHALLENGES TO FUTURE WATER SUPPLY AVAILABILITY

Future Water Supply Reliability

Water demands are projected to increase to approximately 423,000 acre-feet per year by year 2035. Additional water supplies and investments to secure existing supplies and infrastructure are needed to meet future demands. The Water Master Plan presents the water district's strategy for developing the needed water supplies and providing a reliable water supply. However, without additional supplies, normal year supplies in year 2035 are anticipated to be approximately 419,000 acre-feet per year. This is a shortfall of approximately 4,000 acre-feet in a normal year with projected shortfalls during an extended drought considerably greater. Water district modeling indicates that as droughts linger and storage reserves are depleted the county could experience shortages of more than 100,000 acre-feet per year under 2035 demand conditions without new investments in water supplies. To provide a reliable supply of water, the water district must make investments in securing existing water supplies and infrastructure, optimizing the use of existing supplies and infrastructure, and increasing recycling and conservation.

Decrease in Supply

Projected Delta-conveyed imported supplies have decreased as a result of actions to protect fisheries in the Delta and the consequences of climate change. In response to the trend of Delta ecosystem decline and reduced water supply reliability, the water district has been working with state and federal resource agencies, conservation organizations, water agencies, local agencies and other interested parties to develop a comprehensive Bay Delta Conservation Plan (BDCP). The public draft BDCP is expected to be released in early 2013, with release of the final plan and environmental documentation targeted for December 2013. It is anticipated that implementation of the BDCP would improve the functioning of the Delta ecosystem and improve water supply reliability for 25 million Californians.

Risks and Uncertainties

Hydrologic, institutional and regulatory risks and uncertainties influence the projections of both local and imported water supplies and the anticipated reliability of those supplies. Risks and uncertainties to water supply include

random occurrences of hazards and extreme events resulting in local and/or imported water outages, climate change, Delta levee failure, more stringent water quality standards, water quality contamination, fisheries protection measures, SFPUC changes in contracts with local water retailers, reduced deliveries and demand growth greater than projected.

Investment Needs

The water district manages and addresses risks and uncertainties by building and maintaining an integrated and diverse water supply system. The water supply system that exists today will continue to meet most of the county's future water needs and is the foundation of future water supply investments.

Thus, securing existing water supplies and infrastructure is critical to water supply reliability. The water district needs to continue to be vigilant in protecting the groundwater basins from overdraft and contamination, mitigating the diminishing imported and local supplies, and maintaining and replacing the aging water supply infrastructure. These infrastructure investment needs will be further discussed in Section Three of this report.

3-1 ACTIVITIES TO PROTECT AND AUGMENT WATER SUPPLIES OF THE DISTRICT

In May 2012, the water district's Board of Directors adopted groundwater production charges and other water charges to finance a program of activities to protect and augment water supplies of the water district. The program, to be undertaken in fiscal year FY 2012–13, is comprised of activities and service functions in the areas of operations, maintenance and construction, as illustrated in Table 3-1.1. These activities are designed to work together to meet water district board-adopted end goals and policies as well as to provide benefits to the community.

Table 3-1.1 Program Activities to Manage and Provide a Sustainable Water Supply

Sources	Activities to Protect & Augment Water Supplies		End Goals & Benefits
		Services and Functions	• Reliable, clean water supply for current and future generations • Delivery of reliable high quality drinking water • Sustainable water supply through integrated water management • Assets and resources
	Operation	• Planning & development • Water purchases • Transmission • Treatment • Distribution • Storage • Recharge • Conservation, water recycling & desalination • Regulatory compliance and mitigation	
	Maintenance	• Surface & ground water resources protection & management • Asset protection & management	
	Construction	• Capital improvement • Infrastructure management	
			County

Revenue from groundwater production charges and treated water charges constituted the majority of funds needed to finance the operations costs of the Water Utility. Almost a third of the operating budget[1] is needed for imported water purchases to augment local supplies. About a quarter of the operating budget is needed to provide treated water to augment groundwater supply in meeting water demand. The balance is used to provide program services including conjunctive management and protection of surface and ground water resources, operation and maintenance of facilities, water conservation, planning and development of recycled water and other alternative sources of supply, as well as administrative and support services.

[1] The budget document is available on the district website: www.valleywater.org

Water district groundwater and treated water use in FY 2011-12 was slightly higher than the prior year but was roughly 14.8 percent lower than usage in FY 2007-08 due to the economic recession, above average precipitation and cooler weather. The water district continues to implement cost reductions to compensate for the lowered water revenue and an uncertain future. In fact, the district has downsized its workforce by 13% over the past 5 years.

Despite cost reduction impacts, the water district operated a full groundwater recharge program and met treated water demand with no water quality violations in FY 2011-12. Water conservation program services[2] and outreach activities continued as part of the district's long-term water conservation program. The asset management program and maintenance activities continued, including work at the water district's water treatment plants, pipelines, pump stations, as well as seismic stability evaluations at Calero, Guadalupe, Almaden, Lenihan, and Stevens Creek dams. The construction of the Silicon Valley Advanced Water Purification Center, which was jointly developed with the Cities of San Jose and Santa Clara, is scheduled to be complete by June 2013.

Water district staff have continued to participate in development of the Bay Delta Conservation Plan (BDCP) to improve the District's water quality and water supply reliability while balancing other beneficial uses and contributing towards a sustainable Delta ecosystem. The public draft BDCP and associated environmental documentation are expected to be released in early 2013, with the documents finalized in December 2013.

3-2 FUTURE CAPITAL IMPROVEMENT, OPERATING AND MAINTENANCE REQUIREMENTS

For FY 2013–14, as well as the decades ahead, the highest priority work of the water district's Water Utility is to implement a program of activities to ensure reliable water supplies both now and in the future, to protect local surface and ground water supplies, and to meet treated water quality standards. This program of operations, maintenance and capital improvement activities will require continued funding from groundwater production charges and other sources of revenue, as described in Section 4 of this report.

The proposed FY 2013–14 operations and capital programs, as shown in Tables 4-5.1 and 4-5.2, continue to emphasize activities to protect and maintain existing water supplies and assets and to plan for contingencies due to both hydrologic uncertainties and regulatory restrictions on imported and local supplies. The proposed programs, if funded accordingly, will enable the Water Utility to provide reliable water supplies in the next year as well as in the future. Specific details about the operations program can be found in "The 5-Year Water Utility Enterprise Operations Plan".[3]

The current capital program is largely composed of asset renewal and management projects. This underscores the importance of protecting and maintaining existing water supplies and assets, as these provide the foundation for meeting current and future supply needs. Dam seismic retrofits and the Rinconada Water Treatment Plant facility renewals and reliability improvements are the largest of the asset renewal projects in the current capital program.

[2] The annual Water Use Efficiency Program Year End Report contains a complete description of actions taken by the district and the community in achieving water conservation goals. The report can be found at: www.valleywater.org

[3] The 5-Year Water Utility Enterprise Operations Plan can be accessed at: www.valleywater.org/Services/2013-14GroundwaterChargeProcess.aspx

In addition, the water district has nearly completed construction of the Silicon Valley Advanced Water Purification Center at the San Jose/Santa Clara Water Pollution Control Plant. The plant will improve recycled water quality in the county, and is also an important first step in implementing the recycling and conservation element of the future water supply strategy identified in the District's 2012 Water Supply and Infrastructure Master Plan.[4] Some highlights of the proposed FY 2013–14 capital programs are listed next.

Storage:

- Seismic retrofit of Anderson, Stevens Creek, Calero, and Guadalupe Dams
- Seismic evaluations of Chesbro and Uvas Dams
- Rehabilitation of Almaden Dam outlet works

Transmission:

- Raw water pipeline rehabilitation
- Penitencia Delivery Main/Force Main Seismic Retrofit

Water Treatment Plants:

- Seismic retrofits of operations buildings
- Improvements at Rinconada Water Treatment Plant to rehabilitate several critical treatment plant facilities and increase plant reliability
- Begin planning and design of fluoridation facilities at the three water treatment plants

Recycled Water:

- Expansion of the recycled water pipeline system in Gilroy

Detailed cost projections for the preliminary FY 2014-18 CIP can be found in Section 4-5. The seismic stability evaluations at Anderson, Almaden, Calero, Stevens Creek and Guadalupe Dams have been completed and the resulting CIP projects are planned and budgeted. The seismic stability evaluation for two remaining dams, Chesbro and Uvas, will be initiated in FY 2013-14; the findings may require seismic retrofit work at both locations in the future.

In addition to seismic retrofit improvements at the above-listed dams, the conditions of the outlet system, and the adequacy of the spillway and freeboard are being evaluated as well, and will be incorporated into the retrofit work as appropriate.

With operating restrictions on a number of water district dams due to seismic deficiencies or questions about seismic adequacy, there may be impacts to current and future operating budgets, such as the need to purchase additional water because of an inability to capture and utilize local runoff or store imported water.

Another potentially large impact to future operating and capital budgets is the cost to meet environmental permit requirements resulting from the impacts of operations and infrastructure improvements. Among these are the conservation measures needed to fulfill the Three Creeks Habitat Conservation Plans (Three Creeks HCP) and the Santa Clara Valley Habitat Plan (Valley HP). Together, these two plans, once approved, will meet federal

[4] The 2012 Water Supply and Infrastructure Master Plan can be accessed at: http://www.valleywater.org/Services/WaterSupplyPlanning.aspx

Endangered Species Act[5] requirements to protect key species from impacts of routine water supply operations and flood control projects.

The need for the Three Creeks HCP arose from the 1996 listing of steelhead trout as a threatened species under ESA by National Marine Fisheries Service. The Three Creeks HCP includes surface water operations, dam maintenance and seismic safety retrofits in Stevens, Coyote and Guadalupe watersheds to ensure that in-stream flow needs for steelhead can be met.

The Valley HP is a separate joint effort with the County of Santa Clara, the Valley Transportation Authority and the cities of San Jose, Morgan Hill and Gilroy. The purpose of the Valley HP is to protect and create habitat for endangered terrestrial species in the Guadalupe, Coyote and Pajaro watersheds in Santa Clara County. The Valley HP was approved by the water district board and elected officials from several partner agencies in the fall of 2012. Remaining partners are expected to approve the plan in early 2013. Permits from regulatory agencies are expected to be issued in 2013.

Implementation of the Three Creeks HCP and Valley HP will be a large financial commitment for the water district for decades to come in capital, operating and maintenance budgets. Costs have been estimated for both plans, but have not been completely integrated into the groundwater production charge projections, pending finalization of the two plans. In addition, the mitigation fees for the Valley HP are pay as you go, so costs will vary depending on how much of the covered work is actually carried out. The programmatic – as opposed to project-by-project – approach that habitat conservation plans provide will provide more certainty in mitigation cost over the permit term, as well as streamlining ESA permitting for covered activities within the respective permit areas.

[5] The Endangered Species Act (ESA) is a federal law to ensure the conservation of threatened and endangered plants and animals and the habitats in which they are found. The ESA prohibits "take" of listed species through direct harm or destruction or adverse modification of designated critical habitat of such species. In the 1982 ESA amendments, Congress authorized the federal ESA implementing agencies, U.S. Fish and Wildlife Service and National Marine Fisheries Service, through the Secretary of the Interior, to issue permits for the "incidental take" of listed species before permittees could proceed with an activity that is legal in all other respects but would result in the incidental taking of a listed species. Prior to issuance of "take" permits, permit applicants are required to design, implement, and secure funding for a conservation plan that minimizes and mitigates harm to the impacted species during the proposed project. That plan is commonly called a Habitat Conservation Plan (HCP). HCPs are legally binding agreements between the U.S. Secretary of the Interior or Commerce and the permit holder.

The California Endangered Species Act (CESA) is the state equivalent of the federal ESA. It states that all native species and habitats of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved. CESA also allows for take incidental to otherwise lawful development projects. The state Department of Fish and Game is the CESA implementing agency, authorized to issue permits and memorandum of understanding.

4 2013 PAWS REPORT Financial Outlook of Water Utility System

4-1 INTRODUCTION

This section summarizes the recommended charges for fiscal year (FY) 2013–14 and the multi-year financial analysis that serves as the foundation for the recommended water charges in each zone. The major sources of revenue for the Water Utility are from the imposition of charges on groundwater production and from contracts for the sale of treated surface water produced by its three treatment plants. The water district also receives revenue from surface water charges, recycled water charges, property tax, interest earnings, grants, capital reimbursements and other sources. The water district assesses the need for groundwater production and other water charges annually and, in accordance with state law, prepares this report to describe the activities undertaken to provide a water supply, along with the associated capital, maintenance, and operating requirements.

The Rate Setting Process

According to Section 26.3 of the District Act, proceeds from groundwater production charges can be used for the following purposes:

1. Pay for construction, operation and maintenance of imported water facilities
2. Pay for imported water purchases
3. Pay for constructing, maintaining and operating facilities which will conserve or distribute water including facilities for groundwater recharge, surface distribution, and purification and treatment
4. Pay for debt incurred for purposes 1, 2 and 3.

The work of the water district is divided into projects. Every project has a project plan which is prepared by the project manager. The project plan is a detailed description of the project including objectives, milestones, and an estimate of resources needed to deliver the project. To ensure compliance with the District Act, each project plan contains a justification as to whether or not groundwater production charges can be used to pay for the activities associated with it. The financial analysis presented in this report is based on these project plans.

Resolution 99-21 guides staff in the development of the overall pricing structure based on principles established in 1971. The general approach is to charge the recipients of the various benefits for the benefits received. More specifically, pricing is structured to manage surface water, groundwater supplies and recycled water conjunctively to prevent the over use or under use of the groundwater basin. Consequently, staff is very careful to recommend pricing for groundwater production charges, treated water charges, surface water charges and recycled water charges that work in concert to achieve the effective use of available resources.

This year's groundwater production and surface water charge setting process will be conducted consistent with the District Act, Board resolutions 99-21, 12-10 and 12-11[1], as well as Proposition 218's requirements for property-related fees for water services. The water district maintains that the groundwater production and surface water

[1] Resolutions 99-21, 12-10, and 12-11 can be found at http://www.valleywater.org/Services/2013-14GroundwaterChargeProcess.aspx

charges are not legally subject to Proposition 218 requirements. Whether legally bound or not, the water district is committed to a transparent water charge setting process.

The water district has conducted a formal protest procedure of the proposed groundwater production charge increase for the past three years and of surface water charges for the past year. Last year, the results of the groundwater production charge protest procedure were that in the North County Zone W-2, less than 1.4 percent of well operators or property owners protested the proposed groundwater production charges, while in the South County Zone W-5, less than 0.8 percent of well operators or property owners protested. There were no protests by surface water account holders or property owners. FY 2013–14 will be the fourth year in which the process includes a formal protest procedure to allow well operators and property owners to decide whether the Board may authorize an increase to the existing groundwater production charges. It will be the second year that a protest procedure will be implemented for surface water users. As in the past, the board will continue to hold public hearings and seek input from its advisory committees and the public before rendering a final decision on groundwater production and surface water charges for FY 2013–14.

Three years ago, the water district engaged Raftelis Financial Consultants, Inc. (RFC) to review the water district's cost of service and rate setting methodology used to calculate groundwater production charges for FY 2010–11. RFC has conducted over 600 rate and financial planning studies for water and wastewater utilities across the country. Specifically, RFC reviewed the cost of service and financial planning model developed by the water district to calculate groundwater production charges for FY 2010–11. RFC reviewed the water district's rate setting methodology for consistency with industry standards, best practices, and legal considerations such as Proposition 218, the District Act, and Resolution 99-21. The methodology used to calculate groundwater production charges for FY 2010–11 is detailed in RFC's report titled "Review of the Santa Clara Valley Water District's Cost of Service and Rate Setting Methodology for Setting FY 2011 Groundwater Production Charges"[2]. The report demonstrates that the water district developed groundwater production charges consistent with cost of service principles and legal considerations including Proposition 218, the District Act, and Resolution 99-21. The water district will use the same cost of service methodology for the FY 2013–14 rate setting process.

In 2010, the water district engaged RFC and the water resources engineering firms of Hydrometrics Water Resources and Carollo Engineers to further analyze and quantify the conjunctive use benefit of treated water to groundwater and surface water customers. In addition, RFC analyzed the benefits of agricultural water usage to municipal and industrial users. This report titled "Report Documenting the Reasonableness of the Conjunctive Use Benefit of Treated Water to Groundwater and Surface Water Customers and the Benefit of Agricultural Customers to Municipal and Industrial Customers"[3] provides further support and justification for the water district's cost of service methodology.

[2] The initial RFC report can be found at http://www.valleywater.org/Services/2013-14GroundwaterChargeProcess.aspx

[3] The second RFC report can be found at http://www.valleywater.org/Services/2013-14GroundwaterChargeProcess.aspx

4-2 THE WATER CHARGE RECOMMENDATIONS FOR FISCAL YEAR 2013–14

Last year, FY 2012–13, the board chose to increase groundwater production charges in both zones of benefit. In the North County Zone W-2, the board adopted a $622 per acre-foot groundwater production charge for non-agricultural water, $17.70 per acre-foot for agricultural water, and $722 per acre-foot for contract treated water. In the South County Zone W-5, the board adopted a $295 per acre-foot groundwater production charge for non-agricultural water, and $17.70 per acre-foot groundwater production charge for agricultural water.

To maintain affordable rates, 107 positions have been eliminated district-wide over the past five years with more cuts anticipated in the future, discretionary reserves have been drawn down to minimum per policy, temporary staff and overtime have been reduced significantly, and some projects have been canceled or delayed. In addition, the District negotiated new agreements with its employee unions in December 2011. Due to these negotiations, employees have been contributing 15 percent of their health care premiums since April 2012. Union-represented employees did not receive any cost of living adjustment in 2012. Also, employees have been contributing an additional 1.1 percent, for a total of 11 percent of their salary, toward the California Public Employees Retirement System (CalPERS).

Despite these cost savings, the district must invest significant capital dollars into repairing and rehabilitating the infrastructure that keeps water flowing uninterrupted to your tap. We estimate that it would cost $4.3 billion to replace the dams, treatment plants, pipelines, pump stations and recharge ponds that comprise the system behind your water supply. The District plans to invest nearly $1 billion over the next 10 years to ensure that critical repair needs of the system are addressed, which includes investing in our dams to meet seismic safety standards.

The rate increases reflect the district's contribution to a statewide effort to find a long term fix to the Delta, through which roughly 40 percent of our water supply is conveyed. Without investments in the Bay Delta Conservation Plan, the Delta's sensitive ecosystem and water transport system will continue to deteriorate, threatening that vital supply of water to the county. The increases in rates for FY 2013–14 and future years are necessary to bring in the revenue needed to cover operating cost increases and pay for critical capital projects that will help ensure adequate water supply to well owners in Santa Clara County.

In November of 2012, the water District received a funding boost to offset some of its critical capital and operating outlays. Voters of Santa Clara County overwhelmingly supported Measure B, the Safe, Clean Water and Natural Flood Protection Program. Among other priorities, this measure strives to ensure a safe, reliable water supply for the future; reduce toxins, hazards and contaminants in our waterways; and protect our water supply from earthquakes and natural disasters. The passage of this measure (as detailed in Section 4.3) supports investment in important water supply needs of the county and helps alleviate the impact on water charges.

For FY 2013–14 in the North County, staff recommend a 9.3 percent increase, or $680 per acre-foot groundwater production charge for non-agricultural water; 3.4 percent increase, or $18.30 per acre-foot for agricultural water; 8.0 percent increase, or $780 per acre-foot for contract treated water; and 12.4 percent increase or, $755 per acre-foot for non-contract treated water. The average household would experience an increase in their monthly bill of $2.00 or about 7 cents a day.

In the South County, staff recommend a 3.4 percent increase to both non-agricultural and agricultural water. This results in a $305 per acre-foot groundwater production charge for non-agricultural water, and $18.30 per acre-foot

groundwater production charge for agricultural water. The average household would experience an increase in their monthly bill of $0.34 or about 1 cent per day.

Surface water users pay the basic user charge, which is set equivalent to the groundwater production charge, plus a surface water master charge. The basic user charge helps pay for the cost to manage and augment surface water supplies and is set equal to the groundwater production charge because surface water is considered in-lieu groundwater usage. The surface water master charge pays for costs that are specific to surface water users only, including the work to operate surface water turnouts, and maintain surface water accounts.

Staff recommend increasing the surface water master charge by 21.5 percent, from $12.60 per acre-foot to $15.31 per acre-foot, in order to bring revenues in closer alignment with the costs related to managing, operating and billing for surface water diversions.

Figure 4-2.1 illustrates the multi-year groundwater production charge projection. It reflects a range of potential groundwater production charges over the next ten years depending on the level of service to be provided. The high end of the range (line immediately above the shaded areas) represents the groundwater production charges required to fund all of the operations and capital projects identified by staff to meet the board's Ends Policies over the next few years. The potential impacts of not funding the high end of the range include increased risk of (1) service interruptions, (2) higher corrective maintenance costs to repair facilities that have not been well maintained and (3) reduced ability to respond to drought. While staff has identified as many projects as possible, there are initiatives and/or potential future uncertainties that could result in the identification of additional capital or operations projects that are not reflected in the high end of the range.

The lower end of the range (line immediately below the shaded areas) represents staff's recommended groundwater production charges for FY 2013–14 and the corresponding future trajectory based on the assumption that operating services will either continue at or below the level budgeted in FY 2012–13.

Figure 4-2.1 Ten Year Projection

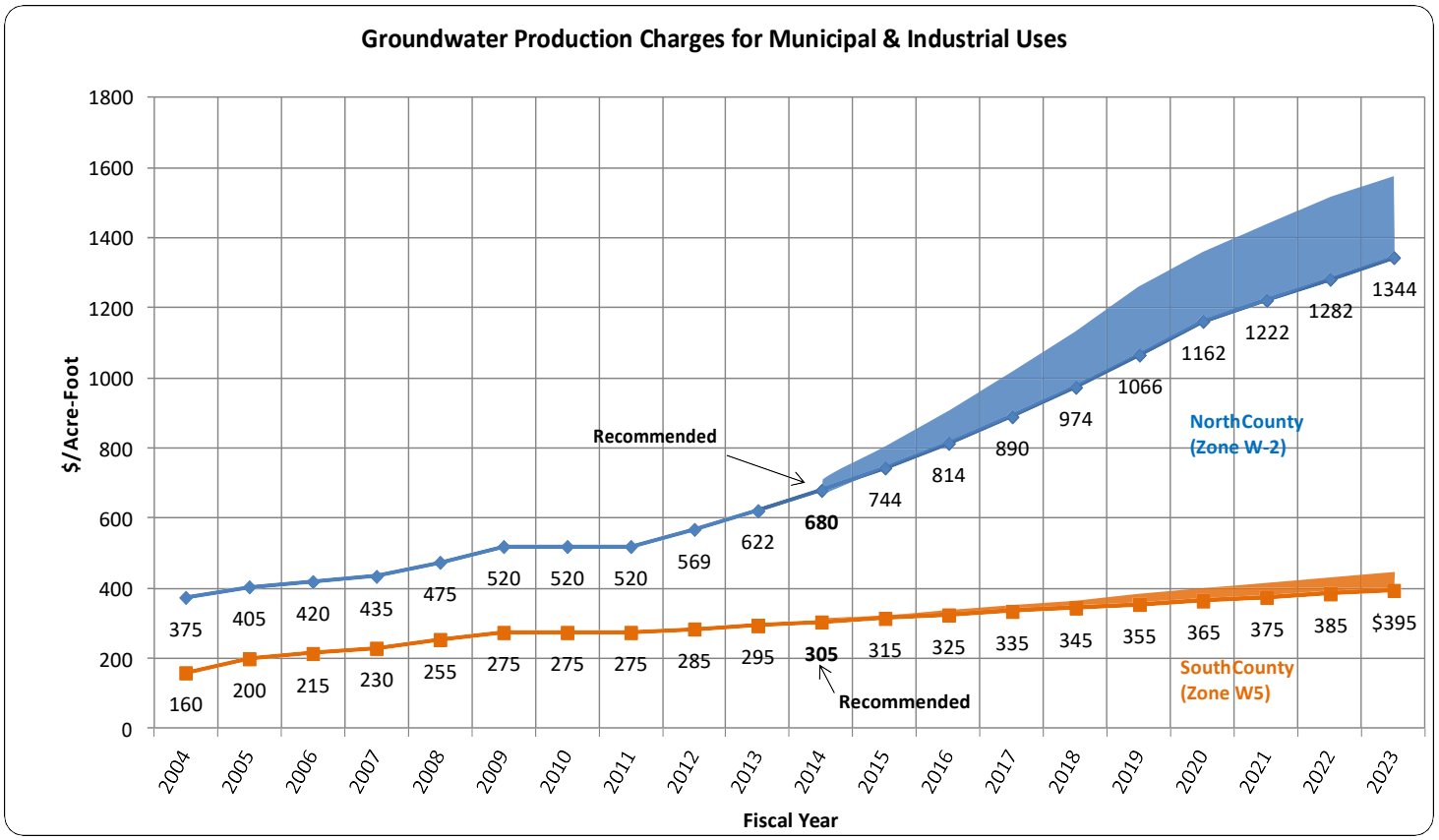


Table 4-2.1 shows groundwater production and other charges in fiscal years 2011–12 and 2012–13. The final column contains the recommended water charges for FY 2013–14, which are in accordance with the pricing policy described in Resolution 99-21.

Table 4-2.1 Summary of Charges (Dollars Per Acre-Foot, $/AF)

	Dollars Per Acre Foot		
	FY 2011–12	FY 2012–13	Recommended FY 2013–14
Zone W-2 (North County)			
Basic User/Groundwater Production Charge			
Municipal & Industrial	569.00	622.00	680.00
Agricultural	17.10	17.70	18.30
Surface Water Charge			
Surface Water Master Charge	12.17	12.60	15.31
Total Surface Water, Municipal & Industrial*	581.17	634.60	695.31
Total Surface Water, Agricultural*	29.27	30.30	33.61
Treated Water Charges			
Contract Surcharge	100.00	100.00	100.00
Total Treated Water Contract Charge**	669.00	722.00	780.00
Non-Contract Surcharge	50.00	50.00	75.00
Total Treated Water Non-Contract Charge***	619.00	672.00	755.00
Zone W-5 (South County)			
Basic User/Groundwater Production Charge			
Municipal & Industrial	285.00	295.00	305.00
Agricultural	17.10	17.70	18.30
Surface Water Charge			
Surface Water Master Charge	12.17	12.60	15.31
Total Surface Water, Municipal & Industrial*	297.17	307.60	320.31
Total Surface Water, Agricultural*	29.27	30.30	33.61
Recycled Water Charges			
Municipal & Industrial	275.00	275.00	285.00
Agricultural	41.50	41.50	42.10

*Note: The total surface water charge is the sum of the basic user charge (which equals the groundwater production charge) plus the water master charge

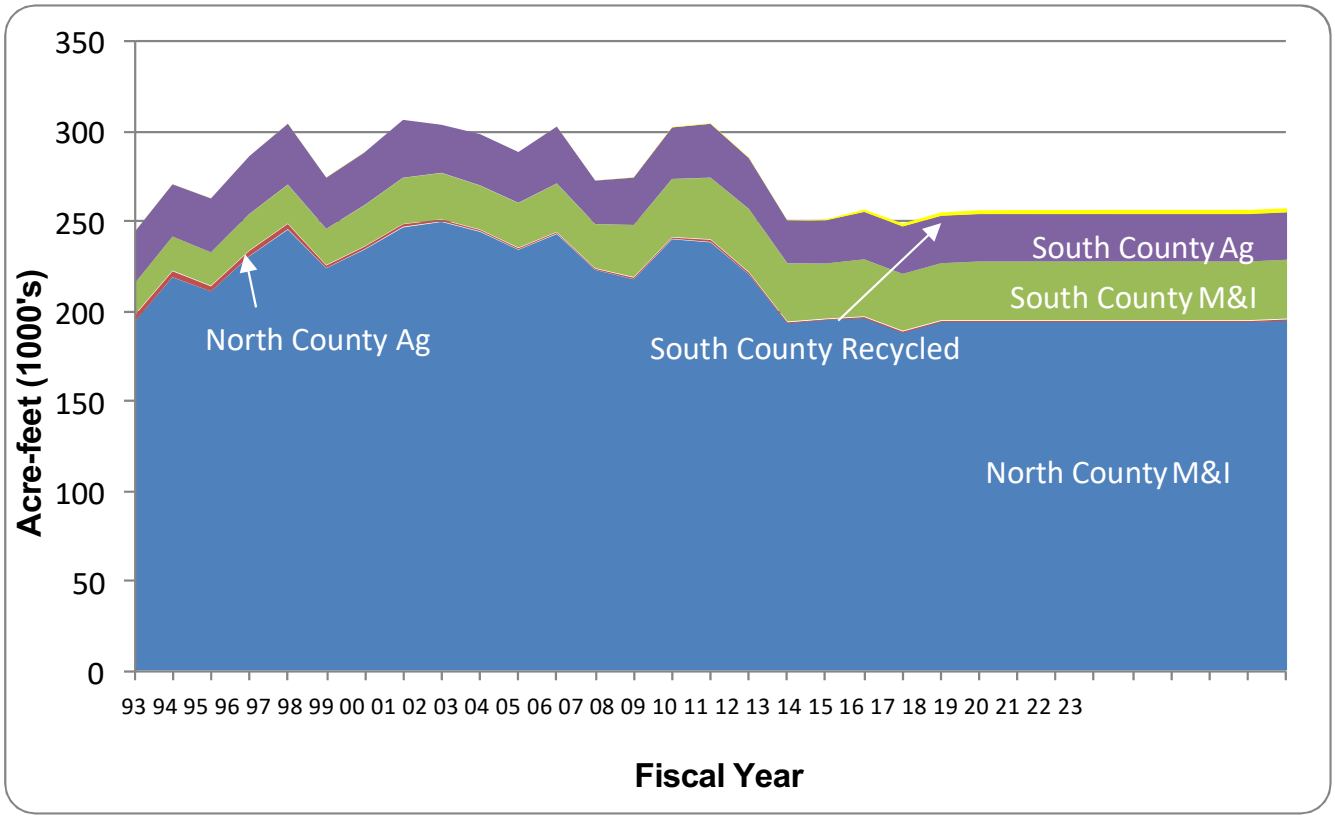
**Note: The total treated water contract charge is the sum of the basic user charge (which equals the groundwater production charge) plus the contract surcharge

***Note: The total treated water non-contract charge is the sum of the basic user charge (which equals the groundwater production charge) plus the non-contract surcharge

Figure 4-2.2 illustrates historical and projected water district water use, which is a key driver of the water district's water revenue. Water usage in FY 2011–12 is estimated at approximately 259,500 AF, which is 3,000 AF higher than budgeted and 8,000 AF higher than the actual water usage recorded in FY 2010–11 of 251,100 AF. The water usage for FY 2012–13 is budgeted at 248,900 AF but is expected to come in higher at year end. Due to the increasing water demand trend over the past few years, staff slightly increased the water usage projection for FY

2013–14 to 255,000 AF, which is 1,500 AF higher than what was projected last year. Water use is projected to ramp up to 257,300 AF by FY 2022–23.

Figure 4-2.2 Historical and Projected Water District Water Use



4-3 FINANCIAL OVERVIEW OF THE WATER DISTRICT

The water district uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. Fund accounting allows government resources to be segregated and accounted for according to their intended purposes. Accounts related to activities of the Water Utility are segregated into the Water Utility Funds comprised of the Water Utility Enterprise Fund and the State Water Project (SWP) Fund. For the Water Utility Enterprise Fund, revenue accounts include: groundwater production, treated water, property taxes, surface water, interest earnings, reimbursements, grants and other. Cost accounts include both direct and indirect or overhead costs associated with Water Utility projects and activities. The SWP Fund accounts specifically for SWP Tax revenue and SWP contractual costs (Note that SWP Tax revenue can only be spent on SWP contractual costs). Table 4-3.1 shows an overview of the funds at the water district including the Water Utility Funds and the estimated revenues, costs and reserves for FY 2013–14 for each fund. Throughout this report, the term "Water Utility" or "Water Utility Enterprise" refers to the combination of the Water Utility Enterprise Fund and the State Water Project Fund.

Table 4-3.1 FY 2013–14 Projected Funds Analysis

	Water Utility Funds				
	Water Utility	State Water	Safe, Clean Water	Watershed	Administration
(Millions $)	Enterprise Fund	Project Fund	Fund	Funds	Funds
Revenue	163.4	22.0	46.5	83.7	5.0
Interfund Transfer	(1.0)	0.3	18.9	(22.5)	4.4
Ops Costs & Xfers	(116.9)	(23.3)	(13.6)	(45.5)	(54.7)
Debt Svc	(17.5)	-	-	(13.3)	(0.6)
Capital	(107.8)	-	(161.5)	(36.1)	(12.4)
Debt Proceeds	82.9	-	-	7.0	-
Intra-District Reimb.[1]	-	-	-	-	54.7
Balance	**3.0**	**(1.0)**	**(109.6)**	**(26.6)**	**(3.7)**
Reserves					
Restricted	23.9	-	30.0	-	-
Committed	39.5	-	-	33.5	5.8
Designated Liability	6.7	-	-	-	12.2
Total Reserves	**70.1**	**-**	**30.0**	**33.5**	**18.0**

Notes:

[1] Intra-District Reimbursements represent overhead costs that have been allocated to the Water Utility; Safe, Clean Water; and Watersheds (included in the operations and capital costs for those funds)

The Safe, Clean Water Fund accounts for a 15 year program that was approved by the voters in November, 2012 for the purpose of addressing several community priorities. These priorities include: securing a safe, reliable water supply; protecting our water system from earthquakes and natural disasters; preventing contaminants from entering the water supply; restoring habitat for fish, birds and wildlife and increasing open space; and enhancing flood protection. The primary source of revenue for this fund is a special parcel tax. This fund supports several projects that benefit not only the community at large but also the Water Utility including hazardous materials management, water conservation grants, rebates to remove excess nitrate from drinking water, and stormwater runoff management. Most notably this fund will contribute $67 million toward the Anderson Dam Seismic retrofit project in the form of a reimbursement to the Water Utility Enterprise Fund. It will also apportion some of the revenue towards the Treated Water Pipeline Reliability and Main/Madrone Avenues Pipeline Restoration projects. For more information on the Safe, Clean Water program please visit www.safecleanwater.org.

The Watershed Funds are a segregated grouping of funds with separate funding sources (including Benefit Assessments and 1 percent ad valorem property taxes) for the purpose of providing flood protection and watershed management.

The Administration Funds include the General Fund, the Equipment Fund and the Risk Fund to account for all revenues and expenditures necessary to carry out basic governmental activities of the water district that are not accounted for through other funds. Administration Funds expenditures that are not offset by Administration Funds revenues are allocated to the Water Utility; Safe, Clean Water; and Watershed funds through an overhead rate at the project level.

4-4 WATER UTILITY FINANCES FOR FISCAL YEARS 2011–12 & 2012–13

Fiscal Year 2011– 12

Actual overall revenue for FY 2011–12 was $4.3 million more than the adopted budget. This additional revenue was due primarily to higher treated water usage that resulted in $23.8 million more than budgeted. The surplus was also due in part to $0.3 million of higher property tax revenue. This additional revenue was offset by $13.6 million lower-than-expected groundwater revenue, as well as $6.3 million in delayed capital reimbursements.

Actual operations outlays came in at $137.0 million and were $8.7 million lower than the adjusted budget. The savings were driven by $1.6 million of debt service savings for the 2007 taxable water utility certificates of participation, about $1.1 million in Commercial Water conservation project, $1.2 million in the water treatment plant operations, $0.8 million in the Silicon Valley Advanced Water Purification center operations and maintenance, and $5.6 million net cost savings in various other projects.

Unspent capital budget was carried forward to FY 2012–13 consistent with accounting practices.

Fiscal Year 2012– 13

Assuming FY 2010–11 seasonality, current estimates for FY 2012–13 show revenue trending at roughly $7 million above budget. This may change depending on whether or not it is a dry or wet spring. Groundwater and treated water usage are both trending higher than last year.

4-5 OVERVIEW OF OPERATING AND LONG-TERM CAPITAL PLANS

To develop a charge structure that will support planned work, staff analyzes the immediate needs of the water district as well as anticipated requirements in the years to come.

Operating Outlays

Operations costs are projected to increase at an average of 5.2 percent per year over the next ten years. The increase is driven by anticipated inflation, cost increases associated with employee salaries and benefits, the Bay Delta solution, and rising costs associated with regulatory requirements.

Table 4-5.1 shows the water district's Water Utility operating program for FY 2011–12, FY 2012–13, and projected for FY 2013–14. Specific details about the programs and projects funded within the water utility can be found in "The 5-Year Water Utility Enterprise Operations Plan[4]." The Water Utility Enterprise strives to implement a program

[4] The 5-year Water Utility Enterprise Operations Plan can be accessed at http://www.valleywater.org/Services/2013-14GroundwaterChargeProcess.aspx

that ensures that treated water quality standards are met and that water supplies are reliable to meet current and future demand.

Table 4-5.1 Operating Budget Summary

		Thousands $			
Cost Center	Ends Policy	Actuals FY 12	Adjusted FY 13	Projected	Description of Cost Centers and Activities
Source of Supply	E-2.1 Current and future water supply for municipalities, industries, agriculture and the environment is reliable	66,965	76,509	75,609	This cost center contains all the anticipated expenditures that relate to obtaining, producing, and protecting a water supply; including all conservation, reclamation, and importation costs. Activities include: groundwater level & quality monitoring; groundwater modeling; dams and reservoir operations & maintenance; imported water supply management; long-term Delta issues resolution; operations and maintenance of San Felipe Reaches 1-3, including mechanical, electrical and SCADA; operations planning; water rights protection; Urban Water Management Plan; administration of recycled water agreements, technical studies, recycled water rebates; water conservation technical assistance, financial incentives, outreach and education; environmental planning & compliance; well permitting and destruction; Silicon Valley Advanced Water Purification Center operations and maintenance; and habitat conservation and
Raw Water Transmission Distribution	E-2.2 Raw Water Transmission and Distribution Assets Are Managed to Ensure Efficiency and Reliability	8,484	9,770	10,537	This cost center contains all expenditures relating to the distribution of raw water. The distribution system consists of pipelines, canals, and percolation ponds and includes the use of creek systems. Activities include: operations and maintenance of recharge ponds, canals, pipelines & diversions including vegetation management; operations and maintenance of raw water distribution system, including mechanical, electrical and SCADA; raw water corrosion control; environmental compliance support.
Water Treatment and Treated Water Transmission & Distribution	E-2.3 Reliable High Quality Water is Delivered	29,853	32,016	33,985	These cost centers contain all expenditures associated with the treatment of water at the Rinconada, Penitencia and Santa Teresa Water Treatment Plants, as well as those expenditures related to the distribution of treated water to retail customers and includes costs associated with the treated water reservoirs, pumping plants, pipelines, and turnouts. Activities include: operations and maintenance of 3 water treatment plants; Water District laboratory operations; water quality planning, testing, research, and reporting; operations and maintenance of treated water transmission and distribution system; and recycled water T&D general maintenance.
Administration & General	Support Services	17,090	19,052	20,035	This cost center contains all expenditures of an administrative nature which cannot be properly assigned to another of the other four cost centers. Activities include: asset protection evaluation and planning; integrated regional water management plan; water system computer modeling; urban runoff pollution prevention; general & division management; performance measures; financial support & water charge setting; customer relations; health and safety training; billing; data maintenance; auditing; meter reading, testing, repair, installation, backflow prevention; emergency services; warehouse and equipment services; real estate services; and ethics & diversity
	Total Program	**122,393**	**137,347**	**140,167**	

Capital Improvements Plans

The water district constructs, operates and maintains reservoirs, pipelines, recharge facilities, and water treatment plants that are needed to achieve the board's Ends Policies. On an annual basis, the water district conducts a process to plan for capital improvements and identify the resource needs and constraints to implement the projects. The result of this process is board approval of a 5-Year Capital Improvement Program (CIP)[5].

Table 4-5.2 shows the capital projects identified in a preliminary version of the FY 2013–14 CIP and associated expenditures for the next ten fiscal years. The table shows funding nearly $1 billion (inflated) worth of capital projects between FY 2013–14 and FY 2022–23. A large portion of the capital program is dedicated to asset management of Water Utility Enterprise facilities throughout the county and is based on a program to provide a better basis for identifying long-term capital rehabilitation and replacement needs. Staff continues to conduct a validation process as part of the water district's Asset Management Program, to identify if there is a compelling business case for capital projects. All newly-proposed projects will undergo the validation process prior to being proposed for inclusion in the CIP. The most recent validation process has eliminated or postponed $76 million of water utility capital projects.

[5] The latest CIP can be accessed at www.valleywater.org/CIP.aspx

Table 4-5.2 Capital Improvements Projects – Fiscal Years 2013–14 Through 2022–23

	Planned Funding with Inflation (Thousands $)						
Name	FY14	FY15	FY16	FY17	FY18	FY 19-23	Total FY 14-23
SOURCE OF SUPPLY							
Dam Maintenance Plan Mitigation*	115						**115**
Dam Safety Program Seismic Stability*	2,709						**2,709**
Calero and Guadalupe Dams Seismic Retrofits	682	6,399	2,944	13,921	55,455	11,224	**90,625**
South County Recycled Water Pipeline - Short-Term Implementation Phase 1B*	1,380	1,439	7,492	819			**11,130**
Central Valley Project Capital Payments*	7,650	7,920	8,200	8,764	9,354	51,946	**93,834**
Silicon Valley Advanced Water Purification Center	1,362						**1,362**
San Luis Reservoir Low Point Improvement - Planning							**0**
Small Capital Improvements, San Felipe Reach 1*	970			135	608	1,097	**2,810**
Small Capital Improvements, San Felipe Reach 2*		71				118	**189**
Small Capital Improvements, San Felipe Reach 3*	1,731	514	830	5,393		1,242	**9,710**
Almaden Dam Improvements	1,100	11,856	201				**13,157**
Jacques Gulch Restoration							**0**
Anderson Dam Seismic Retrofit*	12,620	15,272	70,248	70,987	1,217	380	**170,724**
Stevens Creek Dam Seismic Retrofit	1,560	8,006	506				**10,072**
Pacheco Pumping Plant ASD Replacement*	286						**286**
Source of Supply Subtotal	**32,165**	**51,477**	**90,421**	**100,019**	**66,634**	**66,007**	**406,723**
RAW WATER TRANSMISSION & DISTRIBUTION							
Pacheco/Santa Clara Conduit Right of Way Acquisition*	1,041	257					**1,298**
Penitencia Force Main Seismic Retrofit	171	1,587	1,245				**3,003**
SCADA Remote Architecture & Communications Upgrade*	390	368	795	758	776	2,918	**6,005**
Alamitos Diversion Dam Improvements					375		**375**
Coyote Diversion Dam Improvements				625	1,218		**1,843**
Kirk Diversion Dam & Fish Screen Improvements	395						**395**
Small Capital Improvements, Raw Water Transmission*	265	141	199		129	169	**903**
FAHCE Stevens Creek Moffett Ave Fish Ladder - 90%			998	1,716			**2,714**
FAHCE Stevens Creek Multi-Port Outlet at Dam - 90%			255	942			**1,197**
TC HCP Implementation Fund			1,668	4,651	4,277	140,317	**150,913**
Raw Water Transmission & Distribution Subtotal	**2,262**	**2,353**	**5,160**	**8,693**	**6,775**	**143,404**	**168,646**
ADMINISTRATION AND GENERAL							
5-Year Pipeline Rehabilitation*	5,038	6,249	3,935	4,846			**20,068**
Pipeline Hydraulic Reliability Upgrades (Planning)*							**0**
SCW Regionally Significant Habitat Land Acquisition*		601	625	650	676	3,806	**6,358**
Capital Training and Development*	251	353	378	443	453	2,343	**4,222**
CIP Development & Admin*	490	552	591	691	707	3,658	**6,689**
Survey- Mgt & Admin*	109	88	108	148	128	512	**1,093**
CPSD Management & Support*	2,195	2,709	3,428	4,903	4,427	19,876	**37,539**
Technical Review Committee*	281	425	455	533	545	2,821	**5,062**
Capital Health & Safety Training*	143	126	135	158	162	838	**1,563**
Winfield Capital Improvements (assume 60% WU)*	936	4,643	320				**5,899**
PeopleSoft System Upgrade & Expansion (assume 60% WU)*	2,504	591	484	439	181		**4,199**
Projected Carryforward*	12,738						**12,738**
Administration and General Subtotal	**24,685**	**16,338**	**10,460**	**12,812**	**7,280**	**33,855**	**105,430**

Note: The asterisked projects would benefit the South County, Zone W-5, and therefore would be funded in part or in whole by the South County.

Table 4-5.2 Capital Improvements Projects – Fiscal Years 2013–14 Through 2022–23 (Continued)

	Planned Funding with Inflation (Thousands $)						
Name	FY14	FY15	FY16	FY17	FY18	FY 19-23	Total FY 14-23
WATER TREATMENT							
Fluoridation at WTPs	385	752	5,073	684			**6,894**
PWTP Water Pumps Modification	291	364	119				**774**
PWTP Clearwell Recoating & Repair		2,820	88				**2,908**
STWTP Incompatible Materials	1,223	120					**1,343**
RWTP Standby Power System Upgrade							**0**
RWTP FRP Residuals Management Modifications	21,060	1,503	349				**22,912**
RWTP FRP Primary Electrical System Improvement							**0**
RWTP Treated Water Valves Upgrade	6,214	768	163				**7,145**
RWTP Reliability Improvement	7,923	50,659	54,639	54,687	16,868	152	**184,928**
Infrastructure Reliability	1,525	595	1,097	1,141	5,240	11,225	**20,823**
IRP2 WTP Ops Bldgs Seismic Retrofit	10,140	893	214				**11,247**
Small Capital Improvements, Water Treatment	2,924	3,361	1,883	1,903	1,601	15,569	**27,241**
Water Treatment Subtotal	**51,685**	**61,835**	**63,625**	**58,415**	**23,709**	**26,946**	**286,215**
TREATED WATER TRANSMISSION & DISTRIBUTION							
Water Protection*	175						**175**
Microwave Telecommunications System*	2						**2**
Penitencia Delivery Main Seismic Retrofit	171	1,587	1,245				**3,003**
Small Capital Improvements, Treated Water Transmission	52					95	**147**
Treated Water Transmission & Distribution Subtotal	**400**	**1,587**	**1,245**	**0**	**0**	**95**	**3,327**
TOTAL FUNDED	**111,197**	**133,590**	**170,910**	**179,939**	**104,398**	**270,307**	**970,341**

Note: The asterisked projects would benefit the South County, Zone W-5, and therefore would be funded in part or in whole by the South County.

Table 4-5.3 shows the lower priority or deferred capital projects that are not funded under the recommended charges for FY 2013–14. The postponed capital projects total approximately $380 million (inflated) over the next ten years. A higher groundwater production charge projection would be necessary to fund these postponed capital projects.

Table 4-5.3 List of Capital Projects Postponed Indefinitely

	Planned Funding with Inflation (Thousands $)						
Name	Year 1	Year 2	Year 3	Year 4	Year 5	Years 6-10	Total Yr 1-10
SOURCE OF SUPPLY							
SCADA Small Capital Improvements - Source of Supply*	55	448	466	786	791	2,932	**5,478**
San Luis Reservoir Low Point Improvement - Design and Construction*	151	433	10,306	16,020	11,041	5,631	**43,582**
Dam Seismic Stability at 2 Dams (Chesboro, Uvas)*				17,900	17,900	53,700	**89,500**
Recycled Water Full Scale Implementation*			40,000	40,000	40,000	80,000	**200,000**
Source of Supply Subtotal	**206**	**881**	**50,772**	**74,706**	**69,732**	**142,263**	**338,560**
RAW WATER TRANSMISSION & DISTRIBUTION							
SCADA[1] Small Capital Improvements - RW Trans & Dist*	61	499	519	875	881	3,265	**6,100**
Santa Clara Tunnel Leakage and Pacheco Conduit Dewater*	471	232	2,689				**3,392**
Coyote Pumping Plant ASD Replacement	624						**624**
Raw Water Transmission & Distribution Subtotal	**1,156**	**731**	**3,208**	**875**	**881**	**3,265**	**10,116**
WATER TREATMENT							
SCADA Small Capital Improvements - Water Treatment	180	1,476	1,535	2,586	2,605	9,652	**18,034**
Water Treatment Subtotal	**180**	**1,476**	**1,535**	**2,586**	**2,605**	**9,652**	**18,034**
ADMINISTRATION AND GENERAL							
Maintenance Office Upgrade/Replacement (assume 60% WU)*	131	479	1,388	7,964			**9,963**
Fleet and Facility Annex Improvements (assume 60% WU)*	552	2,077	202				**2,831**
Administration and General Subtotal	**683**	**2,557**	**1,591**	**7,964**	**0**	**0**	**12,794**
TOTAL UNFUNDED	**2,224**	**5,645**	**57,106**	**86,131**	**73,219**	**155,180**	**379,504**

1. Supervisory Control and Data Acquisition

Note: The asterisked projects would benefit the South County, Zone W-5, and therefore would be funded in part or in whole by the South County.

4-6 FINANCES

Financing and Bond Rating

To fund the construction of new facilities, the water district has historically relied on both pay-as-you-go financing and long-term debt financing as authorized by the voters in 1984. Water utility debt service will increase by roughly $2.1 million in FY 2013–14 due to a partial year debt service for a planned debt issuance. Looking forward, capital improvement needs total nearly $1 billion (in inflated dollars) for the ten fiscal years 2013–14 through 2022–23. The District recently reestablished a $100 million Commercial Paper program to provide just-in-time bridge financing between long-term debt issuances. As shown in Figure 4-6.1, the water district will see debt service rise from $17.5 million in FY 2013–14 to roughly $55 million in FY 2022–23 as a result of periodic debt issuances to fund capital projects. Total outstanding debt (excluding general obligation bonds) is shown in Figure 4-6.2 and is projected to increase from $324 million in FY 2013–14 to $704 million in FY 2022–23. This outstanding debt could be significantly higher if all postponed capital projects were funded. Conversely, the debt could also be reduced if projects are reduced or further external funding is found.

Figure 4-6.1 Projected Debt Service

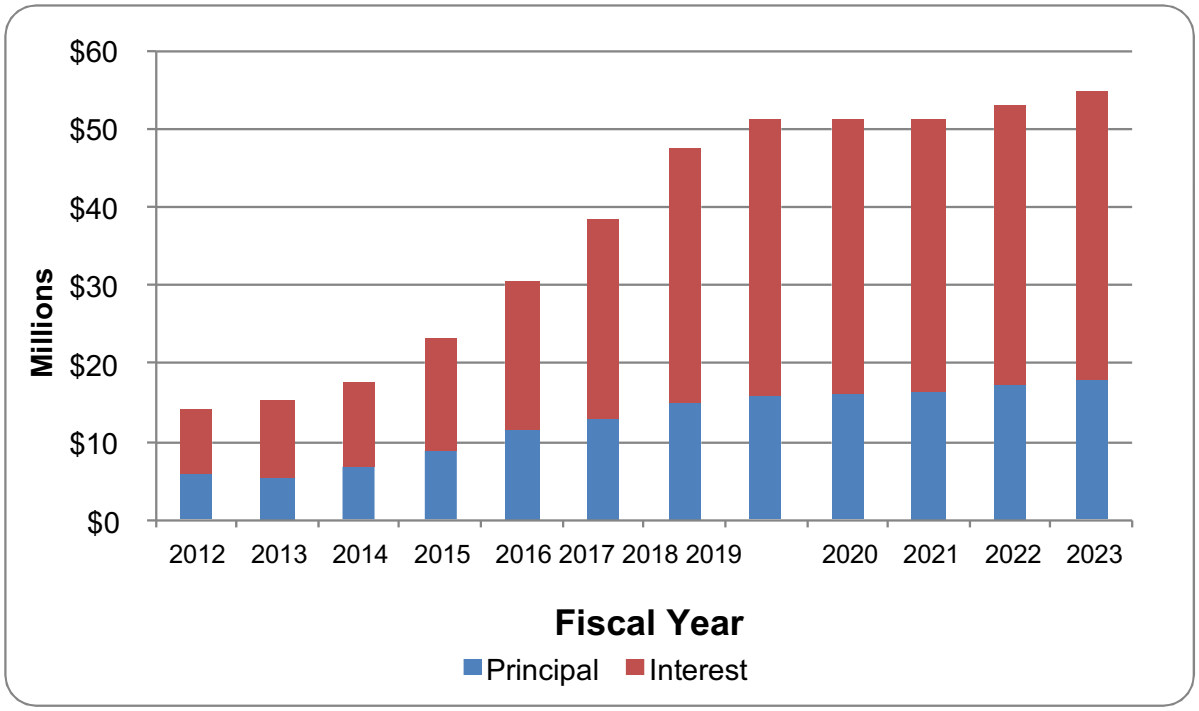
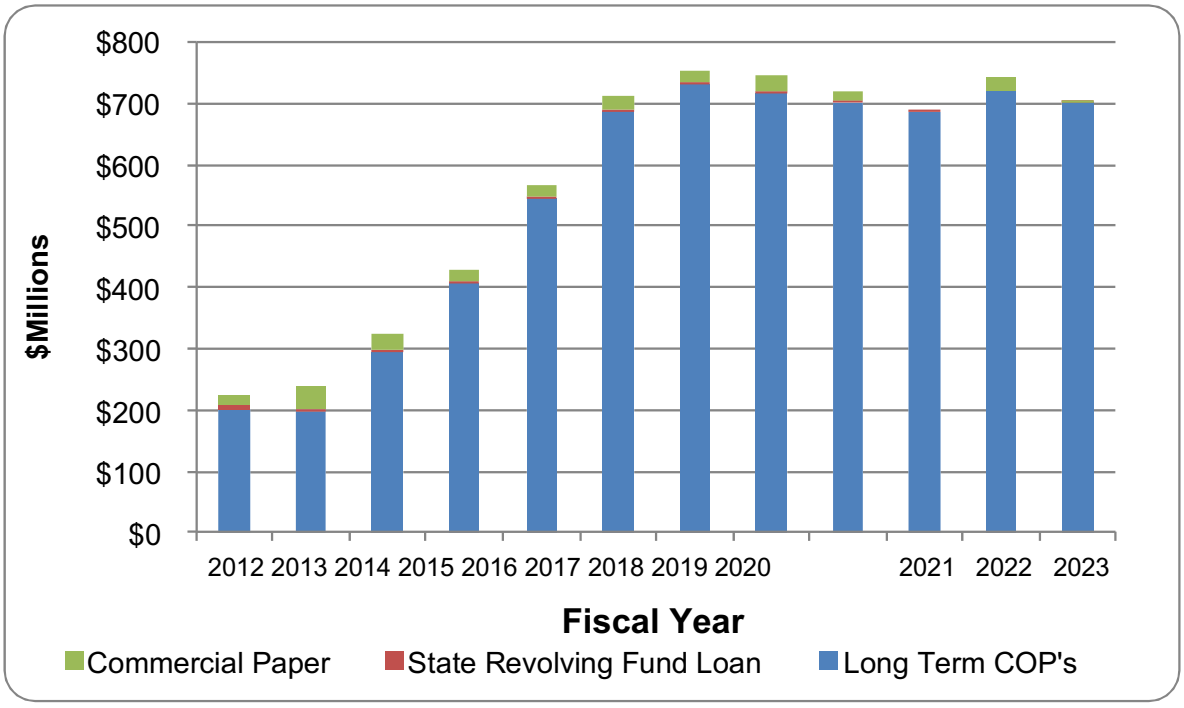


Figure 4-6.2 Projected Outstanding Debt



Current Water Utility debt issuances are rated Aa1 from Moody's and AA from Standard & Poor's. These ratings reflect the water district's strong financial position and the highly rated creditworthiness of water district issued securities. The ratings are among the highest for a water-related governmental entity in the state of California, which helps keep interest costs borne by the water district at a minimum.

Water Utility Funds Projected Proforma

Table 4-6.1 shows the projected revenues, expenditures, and reserves over the next ten years for the Water Utility Funds. By financing with a combination of debt, current year revenue, and reserves, the water district is able to meet its capital investment plan. Under the recommended projection, the financial model assumes that discretionary reserves (the operating and capital reserve plus the supplemental water supply reserve) are maintained at minimum per district policy. The minimum per policy for these reserves equates to having just under 3 months worth of Water Utility operating outlays in the bank. These reserves serve several purposes including: to meet cash flow needs; provide emergency funding; and to provide a funding source for future operating and capital needs. The water district's reserve policy can be found within the Financial Summaries section of the FY 2012–13 Budget document.[6]

The financial model under the recommended projection reflects a senior Lien Debt Service Coverage Ratio ranging between 1.94 and 2.78 through FY 2022–23. Targeting a ratio of 2.0 or better helps to ensure financial stability and continued high credit ratings.

[6] The FY 2012-13 Budget document is located at http://www.valleywater.org/About/Finance.aspx.

Table 4-6.1 Ten-Year Water Utility Plan – ($ in Thousands)

	Actual	Adjusted Budget	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected
	2011–12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Operating Revenues												
Groundwater Production Charges	$48,030	$55,467	$63,035	$68,674	$74,477	$80,748	$87,644	$95,165	$102,998	$108,019	$113,041	$118,600
Surface & Recycled Water Charges	$849	$1,427	$1,571	$1,728	$1,894	$2,074	$2,239	$2,402	$2,570	$2,685	$2,800	$2,918
Treated Water Charges	$92,904	$81,946	$89,699	$97,174	$105,339	$115,114	$124,888	$135,583	$146,738	$153,638	$160,653	$168,741
Inter-governmental Services	$1,111	$2,495	$2,506	$1,223	$1,730	$1,247	$1,766	$1,283	$1,302	$1,325	$1,347	$1,372
Total Operating Revenue	**$142,894**	**$141,335**	**$156,811**	**$168,799**	**$183,440**	**$199,183**	**$216,537**	**$234,433**	**$253,608**	**$265,667**	**$277,841**	**$291,631**
Non-Operating Revenues												
Property Taxes	$22,327	$22,820	$25,210	$26,294	$27,380	$29,468	$30,557	$34,648	$37,741	$41,836	$46,933	$52,031
Interest	$1,446	$689	$415	$421	$614	$834	$1,222	$1,308	$1,378	$1,469	$1,632	$1,991
Capital Contributions	$11,803	$11,516	$1,575	$217	$2,404	$4	$1,530	$1,634	$1,717	$2,000	$2,000	$24
Other	$2,574	$3,218	$1,398	$1,399	$1,399	$1,400	$1,401	$1,402	$1,403	$1,404	$1,405	$1,406
Total Non-Operating Revenues	$38,149	$38,243	$28,598	$28,331	$31,798	$31,706	$34,710	$38,993	$42,239	$46,709	$51,970	$55,452
Total Revenue	**$181,043**	**$179,578**	**$185,409**	**$197,130**	**$215,238**	**$230,890**	**$251,247**	**$273,426**	**$295,847**	**$312,376**	**$329,810**	**$347,083**
			3.2%	6.3%	9.2%	7.3%	8.8%	8.8%	8.2%	5.6%	5.6%	5.2%
Operating Outlays												
Operations	$119,756	$135,216	$139,393	$146,757	$149,451	$155,593	$162,020	$175,898	$186,732	$201,269	$213,561	$225,502
Operating Projects	$2,636	$2,131	$774	$1,876	$2,739	$829	$1,062	$1,101	$1,142	$1,190	$1,235	$1,289
Debt Service	$14,104	$15,387	$17,517	$23,268	$30,571	$38,446	$47,652	$51,310	$51,412	$51,424	$53,163	$54,975
Total Operating Outlays	**$136,496**	**$152,734**	**$157,684**	**$171,902**	**$182,761**	**$194,868**	**$210,734**	**$228,309**	**$239,285**	**$253,883**	**$267,959**	**$281,766**
Operations + OP % Increase	2.2%	12.2%	2.1%	6.0%	2.4%	2.8%	4.3%	8.5%	6.1%	7.8%	6.1%	5.6%
Operating Transfers In/(Out)	3,281	3,690	(878)	(1,172)	3,387	3,881	19,268	4,578	4,707	4,836	4,965	5,093
Debt Proceeds	16,670	19,424	82,853	104,363	138,325	142,671	52,570	7,142	(13,546)	(16,726)	65,630	(20,300)
Capital Outlay	(57,240)	(66,749)	(107,757)	(128,356)	(170,106)	(179,500)	(104,217)	(53,407)	(41,860)	(40,338)	(116,974)	(17,728)
Total Other Financing Sources/ (Uses)	(37,289)	(43,635)	(25,782)	(25,165)	(28,394)	(32,949)	(32,379)	(41,687)	(50,699)	(52,229)	(46,380)	(32,934)
Balance Available	**7,258**	**(16,790)**	**1,943**	**63**	**4,082**	**3,073**	**8,133**	**3,430**	**5,863**	**6,264**	**15,471**	**32,383**
Reserves:												
Restricted Reserves:												
WUE-Restricted Operating Reserve	$11,757	$12,728	$13,140	$14,325	$15,230	$16,239	$17,561	$19,026	$19,940	$21,157	$22,330	$23,481
WUE - Rate Stablization Reserve	$1,579	$1,539	$1,752	$2,327	$3,057	$3,845	$4,765	$5,131	$5,141	$5,142	$5,316	$5,497
San Felipe Emergency Reserve	$3,958	$3,924	$3,924	$3,924	$3,924	$3,924	$3,924	$3,924	$3,924	$3,924	$3,924	$3,924
Revenue Bond Debt Service Reserve	$6,041	$4,675	$4,675	$4,675	$4,675	$4,675	$4,675	$4,675	$4,675	$4,675	$4,675	$4,675
State Water Project Tax Reserve	$4,346	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
State Revolving Fund	$401	$401	$401	$401	$401	$401	$401	$401	$401	$401	$401	$401
Total Restricted	**$28,083**	**$23,267**	**$23,892**	**$25,652**	**$27,287**	**$29,084**	**$31,326**	**$33,157**	**$34,082**	**$35,299**	**$36,646**	**$37,978**
Committed Reserves:												
Floating Rate Debt Stabilization	$475	$462	$462	$462	$462	$462	$462	$462	$462	$462	$462	$462
Designated for Operating and Capital	$9,320	$16,928	$29,070	$26,973	$29,020	$29,897	$35,387	$36,587	$41,124	$45,771	$59,495	$90,147
Supplemental Water Supply Appropo.	$8,658	$8,094	$10,007	$10,407	$10,807	$11,207	$11,607	$12,007	$12,407	$12,807	$13,207	$13,607
Currently Authorized Projects	$31,742	$12,738	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Designated Reserves	**$50,195**	**$38,221**	**$39,538**	**$37,841**	**$40,288**	**$41,565**	**$47,456**	**$49,055**	**$53,993**	**$59,039**	**$73,164**	**$104,215**
Designated Liability & Other:												
GO litigation liability	$6,739	$6,739	$6,739	$6,739	$6,739	$6,739	$6,739	$6,739	$6,739	$6,739	$6,739	$6,739
Total Designated Liability & Other	**$6,739**	**$6,739**	**$6,739**	**$6,739**	**$6,739**	**$6,739**	**$6,739**	**$6,739**	**$6,739**	**$6,739**	**$6,739**	**$6,739**
Total	**$85,017**	**$68,226**	**$70,169**	**$70,232**	**$74,315**	**$77,388**	**$85,521**	**$88,951**	**$94,814**	**$101,078**	**$116,549**	**$148,932**
Debt Service Coverage												
Senior Lien Debt Service Coverage	3.74	2.45	2.78	2.12	2.15	2.06	1.94	1.95	2.19	2.23	2.25	2.29

North County (Zone W-2) Finances

North County (Zone W-2) is generally defined as the portion of the county north of Metcalf Road. North County (Zone W-2) accounts for approximately 80 percent of water district water consumption, but because of higher charges due to higher North County costs, about 95 percent of the Water Utility Enterprise's revenue. As shown at the beginning of the financial section in Table 4-2.1, staff recommend a $680 per acre-foot groundwater production charge for municipal and industrial (M&I) or other non-agricultural water and a $780 per acre-foot charge for contract treated water for FY 2013–14. If adopted, there would be a 9.3 percent increase for groundwater production and 8 percent for contract treated water compared to FY 2012–13. The average household would experience an increase in their monthly bill of $2.00 or about 7 cents a day. Customers may also experience additional charge increases enacted by their retail water provider.

Staff propose a $0.60 per acre-foot or 3.4 percent increase to the North County agricultural groundwater production charge, which results in $18.30 per acre-foot in FY 2013–14, in concert with the South County agricultural groundwater production charge. The resulting agricultural groundwater production charge is 3 percent of the M&I groundwater production charge in North County.

Although work on fluoridation of the treated water system will begin in FY 2013–14, the recovery of such costs are planned to begin in FY 2014–15. Staff, therefore, recommend maintaining the surcharge on treated water delivered under the contracts with retail agencies at $100 per acre-foot. As outlined in treated water contracts, the water district has the discretion to make available treated water in excess of the retailers' basic contract amounts, so-called non-contract treated water, "... at such times and such prices as determined by the District." Staff recommend increasing the non-contract surcharge to $75 per acre-foot for FY 2013–14 to reduce the demand on surface water supplies and encourage a shift towards groundwater usage. Staff anticipate having adequate surface water supplies to meet contract and non-contract deliveries. The proposed surcharges for contract and non-contract water are expected to cause retail customers to be economically neutral as to whether to take treated water or pump groundwater.

It is recommended that the surface water master charge be increased from $12.60 per acre-foot to $15.31 per acre-foot in order to gradually bring revenues in line with costs related to managing, operating and billing for surface water diversions. The increases in the basic user charge and surface water master charge result in a total surface water charge for municipal and industrial water of $695.31 per acre-foot or a 9.6 percent increase. The total surface water charge for agricultural water would increase to $33.61 per acre-foot, which is a 10.9 percent increase, relative to FY 2012–13.

Staff also recommend setting the State Water Project tax collection for FY 2013–14 at $21 million. The District incurs an annual indebtedness to the State of California pursuant to its Water Supply Contract dated November 20, 1961. Such indebtedness is proportional to the District's allocation of water from the State Water Project and pays for construction, maintenance and operation of state water project infrastructure and facilities. Staff anticipate that the District's contractual indebtedness to the State under the State Water Supply Contract for FY 2013–14 will be at least $21 million.

Table 4-6.2 shows the relationship between expenditures and the sources of revenue in North County Zone W-2. The groundwater production charges for FY 2013–14 are necessary to conduct "district activities in the protection and augmentation of the water supplies for users within a zone or zones of the district which are necessary for the public health, welfare, and safety of the people of this State" (District Act, Section 26.3).

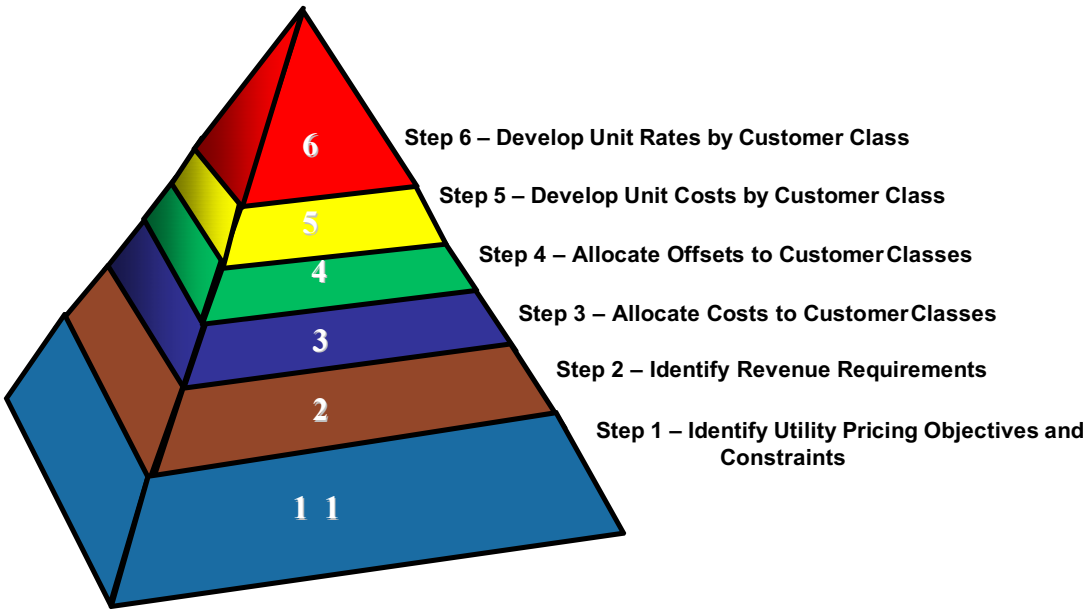
Table 4-6.2 Fiscal Year 2013–14 North County Water Utility Water Program Requirements and Financing Sources

Cost Center	Ends Policy	FY 14 Projected ($K)	Description of Cost Center/Activities
Source of Supply	E-2.1 Current and future water supply for municipalities, industries, agriculture and the environment is reliable	68,214	This cost center contains all the anticipated expenditures that relate to obtaining, producing, and protecting a water supply; including all conservation, reclamation, and importation costs.
Raw Water Transmission & Distribution	E-2.2 Raw Water Transmission and Distribution Assets Are Managed to Ensure Efficiency and Reliability	8,017	This cost center contains all expenditures relating to the distribution of raw water. The distribution system consists of pipelines, canals, and percolation ponds and includes the use of creek systems.
Water Treatment and Treated Water Transmission & Distribution	E-2.3 Reliable High Quality Water is Delivered	33,965	These cost centers contain all expenditures associated with the treatment of water at the Rinconada, Penitencia and Santa Teresa Water Treatment Plants, as well as those expenditures related to the distribution of treated water to water utilities and includes costs associated with the treated water reservoirs, pumping plants, pipelines, and turnouts.
Administration & General	Support Services	16,767	This cost center contains all expenditures of an administrative nature which cannot be properly assigned to another of the other four cost centers. Work performed in this cost center cover items such as the collection of groundwater charges, financial and cash flow studies, annual reports, and general water management planning.
Capital & Other	Debt Service	17,517	Principal and Interest payments on outstanding debt
	Capital Improvements	111,197	Capital Improvement Program
	Open Space Credit	3,028	Help preserve the open space benefits provided by agricultural lands
	Adjust for FY 11 Actuals Versus Plan	12,895	
	Total Program Requirements	**271,599**	
	Financing Sources		
	Capital Cost recovery	3,474	
	Debt Proceeds	82,853	
	Interest & Other	8,524	
	Property Tax	23,034	
	Treated Water Sales	89,699	
	Surface Water Charges	1,044	
	Groundwater Production Charges	53,122	
	Capital Carryforward Reserves	12,738	
	Change in Reserves	(2,890)	
	Total Financing Sources	**271,599**	

Figure 4-6.3 and Table 4-6.3 show the cost of service analysis by customer class following six industry standard rate making steps:

1. Identify utility pricing objectives and constraints
2. Identify revenue requirements
3. Allocate costs to customer classes
4. Reduce costs by revenue offsets or non-rate related funding sources
5. Develop unit costs by customer class or net revenue requirements by customer class
6. Develop unit rates by customer class

Figure 4-6.3 Industry Standard Rate Making Steps



Water Utility pricing objectives and constraints are identified in Resolution 99-21, the District Act, Proposition 218, and existing contracts.

Line 11 in Table 4-6.3 represents rate making steps 2 and 3 summarizing the revenue requirements for North County Zone W-2 including operations costs, capital costs and debt service. Step 2 involves allocating water utility costs between zones W-2 (North County) and W-5 (South County) according to the benefits provided in each zone. Appendix B shows the percentage of operations costs allocated to the South County, along with a brief description of the basis of the allocation. Appendix C shows the percentage of capital and debt service costs allocated to South County along with a brief description of the basis of the allocations. Costs not allocated to the South County are allocated to the North County. Step 3 involves allocating costs directly to each customer class where possible, or allocating based on volume where the program services benefit multiple customer classes.

Line 29 in Table 4-6.3 represents rate making steps 4 and 5. It reflects the unit cost per acre-foot by customer class after applying non-rate related offsets to the revenue requirements. Offsets have been allocated directly to each zone and customer class where possible, or allocated based on volume where the offset applies to multiple customer classes. FY 2013–14 unit costs include an adjustment for the reconciliation of FY 2010–11 actual costs and revenues against what was planned.

Line 39 represents rate making step 6. There are two adjustments that have been made to achieve a pricing structure that meets the objectives of Resolution 99-21, namely a structure that facilitates managing surface water (SW) and groundwater (GW) supplies conjunctively to prevent the over use or under use of the groundwater basin. First, non-rate related revenues are offset against the cost of agricultural water. This is referred to as the "open space" credit. The purpose of the credit is to preserve the open space benefits provided by agricultural lands by keeping agricultural groundwater production charges low.

The second adjustment involves reallocating the cost of treated water to groundwater and surface water users based on proportional water usage. Importing water into the county for treatment and subsequent distribution to treated water (TW) users offsets the need to pump water from the ground. Without treated imported water supplies, the groundwater basin would become over drafted, which would also impact surface water users (who are permitted to take surface water in-lieu of pumping it from the ground). Consequently, the reallocation of treated water cost represents the value of treated water to groundwater and surface water users and facilitates a pricing structure that prevents the over use of the groundwater basin.

Table 4-6.3 Fiscal Year 2013–14 North County (Zone W-2) Cost of Service by Customer Class

	FY '14 Projection ($K)	Zone W-2					
		GW		TW	SW		Total W-2
		M&I	AG	M&I	M&I	Ag	
1	**Operating Outlays**						
2	Operations/Operating Projects	27,468	219	74,513	795	19	103,015
3	SWP Imported Water Costs	5,748	48	17,813	331	8	23,947
4	Debt Service	3,144	26	14,303	42	1	17,517
5	**Total Operating Outlays**	36,360	293	106,629	1,167	28	144,479
6							
7	**Capital & Transfers**						
8	Operating Transfers Out	1,376	11	2,026	26	1	3,440
9	Capital Outlays excl. carryforward	15,629	130	78,968	286	7	95,019
10	**Total Capital & Transfers**	17,005	142	80,994	312	8	98,460
11	**Total Annual Program Costs**	53,365	435	187,623	1,479	36	242,938
12							
13	**Revenue Requirement Offsets**						
14	Capital Cost Recovery	(1,389)	(12)	(2,046)	(27)	(1)	(3,474)
15	Debt Proceeds	(13,628)	(113)	(68,857)	(249)	(6)	(82,853)
16	Inter-governmental Services	(923)	(8)	(1,358)	(18)	(0)	(2,307)
17	SWP and W-1 Property Taxes	(4,738)	(39)	(14,683)	(272)	(7)	(19,740)
18	South County Deficit/Reserve	(1,152)	(10)	(1,697)	(22)	(1)	(2,881)
19	Interest Earnings	(166)	(1)	(244)	(3)	(0)	(415)
20	Inter-zone Interest	5	0	8	0	0	13
21	Capital Contributions	(630)	(5)	(927)	(12)	(0)	(1,575)
22	Other	(384)	(3)	(956)	(17)	(0)	(1,360)
23	Reserve Requirements	291	20	2,573	5	1	2,890
24	**Adjusted Revenue Requirement (FY 14)**	**30,651**	**263**	**99,435**	**865**	**22**	131,236
25	**Adjusted Revenue Requirement (FY 11 adj)**	10,104	(5)	2,082	715	(1)	12,895
26	**Total Adjusted Revenue Requirement**	**40,755**	**258**	**101,518**	**1,580**	**21**	144,132
27	Volume (KAF)	78.1	0.7	115.0	1.5	0.0	195
28							
29	Revenue Requirement per AF	$ 522	$ 398	$ 883	$ 1,053	$ 566	
30							
31	**Adjustments for Agricultural Preservation**						
32	Allocate WU 1% Ad Valorem Prop Tax	0	(247)	-	-	(19)	(266)
33	Transfer GF 1% Ad valorem Prop Tax	-	-	-	-	-	-
34	Transfer WS 1% Ad Valorem Prop Tax	-	-	-	-	-	-
35	Revenue Requirement per AF	$ 521.8	$ 18.3	$ 883	$ 1,053	$ 33.6	
36							
37	**Adjustments to Facilitate Conjunctive Use**						
38	Reallocate TW/SW/RW costs	12,355	-	(11,818)	(537)	-	(0)
39	Charge per AF	$ 680	$ 18.3	$ 780	$ 695	$ 33.6	
40	Total Revenue ($K)	$53,110	$12	$89,699	$1,043	$1	143,866

Step 2- Identify revenue requirnts

Step 3- Allocate costs to customerclasses

Step 4- Reduce costs by revenue offsets

Step 5 - Develop unit costs by customerclass

Step 6 - Rate Design

South County (Zone W-5) Finances

South County (Zone W-5) is generally defined as the portion of Santa Clara County south of Metcalf Road, including Coyote Valley, Morgan Hill, San Martin, Gilroy and other unincorporated areas within the zone. Within the Water Utility Fund, water district staff track revenue and costs associated with the South County Zone W-5 separately so that the groundwater production charge for services that benefit the South County Zone can be calculated.

Charges in the South County (Zone W-5) are based on the costs of specific facilities, imported water costs, and operations costs related to managing a conjunctive use program, ensuring water quality, and measuring water supplies and usage. Historically, South County finances have been managed to maintain an approximate balance between cumulative revenues and costs. However, going forward, staff believe that maintaining a cumulative surplus or reserve balance would be prudent to provide a funding source for unforeseen future costs. Staff plan to analyze the appropriate level of reserve balance to maintain.

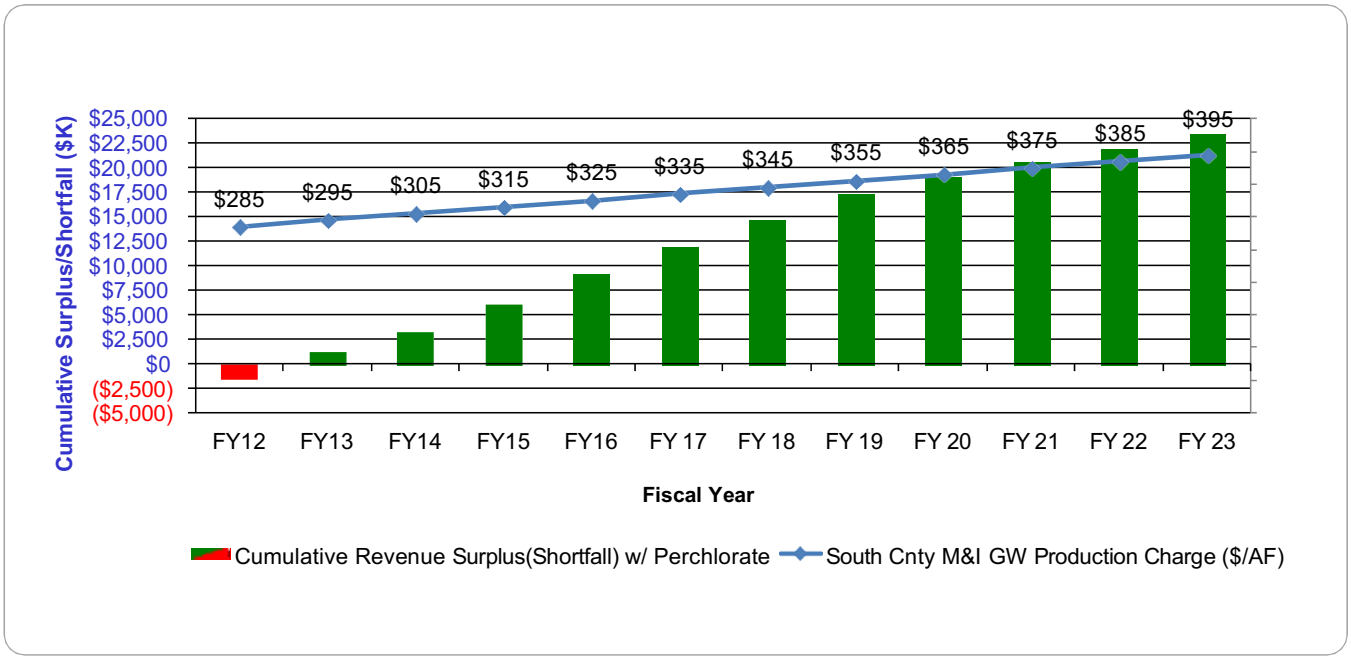
For South County, staff recommend increasing the groundwater production charge to $305 per acre-foot for M&I water and $18.30 per acre-foot for agricultural water. The average household would experience an increase in their monthly bill of $0.34 or about 1 cent per day. Customers may also experience additional water charge increases enacted by their retail water provider.

It is recommended that the surface water master charge be increased from $12.60 per acre-foot to $15.31 per acre-foot in order to gradually bring revenues in line with costs related to managing, operating and billing for surface water diversions. The increases in the basic user charge and surface water master results in a total surface water charge for M&I water of $320.31 per acre-foot or a 4.1 percent increase. The total surface water charge for agricultural water would increase to $33.61 per acre-foot, which is a 10.9 percent increase, relative to FY 2012–13.

For recycled water, staff recommend increasing the M&I charge by 3.6 percent to $285 per acre-foot. For agricultural recycled water, staff recommend a 1.4 percent increase to $42.10 per acre-foot. This pricing is consistent with the provisions of the "Wholesale-Retailer Agreement for Supply of recycled Water Between Santa Clara Valley Water District and City of Gilroy." The increase maximizes cost recovery while concurrently providing an economic incentive to use recycled water.

On a cumulative basis, revenues are estimated to exceed costs by approximately $3.2 million at the end of FY 2013–14. Figure 4-6.4 shows a cumulative revenue surplus projected in subsequent years which could help pay for potential dam seismic work at Uvas and Chesbro dams. The projection assumes an average increase of 3.0 percent in the M&I groundwater charge between FY 2013–14 and FY 2022–23. The average increase under the high end of the projected range shown in Figure 4-2.1 is 4.4 percent, over the same time frame.

Figure 4-6.4 South County Cumulative Revenue Surplus / Shortfall Projection ($/Thousands)



Open Space Credit

The District Act limits agricultural groundwater production charges to a maximum of 25 percent of the M&I groundwater production charges. Current board policy adds an "open space" credit to agricultural revenues. The purpose of the credit is to preserve the open space benefits provided by agricultural lands by keeping agricultural groundwater production charges low. To the extent that Proposition 218 applies to the groundwater production charge, it requires that costs to end users be proportional such that one class of users is not subsidizing another.

To comply with the current agricultural groundwater production charge setting policy, staff recommends the open space credit received by South County be $6.5 million in FY 2013–14 (funded by 1 percent ad valorem property taxes). This includes an adjustment that reconciles FY 2010–11 actuals against what was projected. The recommended agricultural groundwater production charge for FY 2013–14 is $18.30 per acre foot, which is 6 percent of the proposed M&I groundwater production charge in South County.

Program Requirements and Financing Sources

Table 4-6.4 shows the relationship between expenditures and sources of revenue in South County for FY 2013–14. It is estimated that South County will pay for $13.2 million of operating costs and pay back nearly $3.5 million in capital costs. The specific operating costs allocated to South County can be found in Appendix B. Details on capital cost recovery can be found in Appendix C. The groundwater production charges recommended for FY 2013–14 in South County Zone W-5 are necessary to conduct, "district activities in the protection and augmentation of the water supplies for users within a zone or zones of the district which are necessary for the public health, welfare, and safety of the people of this State" (District Act, Section 26.3).

Table 4-6.4 Fiscal Year 2013–14 South County Water Utility Program Requirements and Financing Sources

Cost Center	FY 14 Ends Policy	Projected ($K)	Description of Cost Center/Activities
Source of Supply	E-2.1 Current and future water supply for municipalities, industries, agriculture and the environment is reliable	7,395	This cost center contains all the anticipated expenditures that relate to obtaining, producing, and protecting a water supply; including all conservation, reclamation, and importation costs.
Raw Water Transmission & Distribution	E-2.2 Raw Water Transmission and Distribution Assets Are Managed to Ensure Efficiency and Reliability	2,521	This cost center contains all expenditures relating to the distribution of raw water. The distribution system consists of pipelines, canals, and percolation ponds and includes the use of creek systems.
Water Treatment and Treated Water Transmission & Distribution	E-2.3 Reliable High Quality Water is Delivered	20	These cost centers contain all expenditures associated with the treatment of water at the Rinconada, Penitencia and Santa Teresa Water Treatment Plants, as well as those expenditures related to the distribution of treated water to water utilities and includes costs associated with the treated water reservoirs, pumping plants, pipelines, and turnouts.
Administration & General	Support Services	3,269	This cost center contains all expenditures of an administrative nature which cannot be properly assigned to another of the other four cost centers. Work performed in this cost center cover items such as the collection of groundwater charges, financial and cash flow studies, annual reports, and general water management planning.
Capital & Other	Capital Cost Recovery	3,474	Annual payment for completed capital facilities and improvements
	Interest (Earned)/Due Utility Reserves	(13)	Based on cumulative revenue shortfall at 3% interest rate
	Adjust for FY 11 Actuals Versus Plan	(1,105)	
	Total Program Requirements	**15,561**	
	Financing Sources		
	Open Space Credit	5,590	
	Property Tax & Other Revenue	2,413	
	Surface Water Charges	204	
	Recycled Water Charges	323	
	Groundwater Production Charges	9,913	
	Total Financing Sources	**18,443**	
	FY 14 Revenue Surplus	**2,881**	

Figure 4-6.3 and Table 4-6.5 show the cost of service analysis by customer class following the six industry standard rate making steps for South County Zone W-5:

1. Identify utility pricing objectives and constraints
2. Identify revenue requirements
3. Allocate costs to customer classes
4. Reduce costs by revenue offsets or non-rate related funding sources
5. Develop unit costs by customer class or net revenue requirements by customer class
6. Develop unit rates by customer class

Line 11 in Table 4-6.5 represents rate making steps 2 and 3 summarizing the revenue requirements for South County Zone W-5. Costs have been allocated directly to each customer class where possible, or allocated based on volume where the costs benefit multiple customer classes.

Line 29 in Table 4-6.5 represents rate making steps 4 and 5. It reflects the unit cost per acre-foot by customer class after applying non-rate related offsets to the revenue requirements. Offsets have been allocated directly to each customer class where possible, or allocated based on volume where the offset applies to multiple customer classes. FY 2013–14 unit costs include an adjustment for the reconciliation of FY 2010–11 actual costs and revenue against what was planned.

Line 39 represents rate making step 6. There are two adjustments that have been made to achieve a pricing structure that meets the objectives of Resolution 99-21, namely a structure that facilitates managing surface water and groundwater supplies conjunctively to prevent the over use or under use of the groundwater basin. First, non-rate related revenues are offset against the cost of agricultural water. This is referred to as the "open space" credit. The purpose of the credit is to preserve the open space benefits provided by agricultural lands by keeping agricultural groundwater production charges low.

The second adjustment involves reallocating the cost of recycled water (RW) to groundwater users. Without recycled water supplies, there would be additional demand on the groundwater basin and a higher risk of overdraft. Consequently, the reallocation of recycled water cost represents the value of recycled water to groundwater users and facilitates a pricing structure that helps prevent the over use of the groundwater basin.

Table 4-6.5 Fiscal Year 2013–14 South County (Zone W-5) Cost of Service by Customer Class

	FY '14 Projection ($K)	Zone W-5						
		GW		SW		RW		Total W-5
		M&I	AG	M&I	AG	M&I	AG	
1	**Operating Outlays**							
2	Operations/Operating Projects	7,036	5,462	147	376	96	86	13,205
3	SWP Imported Water Costs	-	-	-	-	-	-	-
4	Debt Service	-	-	-	-	-	-	-
5	**Total Operating Outlays**	7,036	5,462	147	376	96	86	13,205
6	Step 2- Identify revenue reqmnts							
7	**Capital & Transfers**							
8	Operating Transfers Out	-	-	-	-	-	-	-
9	Capital Outlays excl. carryforward	-	-	-	-	-	-	-
10	**Total Capital & Transfers**	-	-	-	-	-	-	-
11	**Total Annual Program Costs**	7,036	5,462	147	376	96	86	13,205
12	Step 3 - Allocate costs to customer classes							
13	**Revenue Requirement Offsets**							
14	Capital Cost Recovery	1,269	1,023	20	53	583	525	3,474
15	Debt Proceeds	-	-	-	-	-	-	-
16	Inter-governmental Services	(108)	(87)	(1)	(3)	-	-	(199)
17	SWP and W-1 Property Taxes	(654)	(528)	(11)	(27)	(21)	(19)	(1,260)
18	South County Deficit/Reserve	1,782	1,208	49	63	(264)	43	2,881
19	Interest Earnings Step 4-	-	-	-	-	-	-	-
20	Inter-zone Interest Reduce costs by	(7)	(5)	(0)	(0)	(0)	(0)	(13)
21	Capital Contributions revenue offsets	-	-	-	-	-	-	-
22	Other	(20)	(16)	(0)	(1)	-	-	(38)
23	Reserve Requirements	-	-	-	-	-	-	-
24	**Adjusted Revenue Requirement (FY 14)**	**9,298**	**7,057**	**205**	**461**	**394**	**636**	18,050
25	**Adjusted Revenue Requirement (FY 11 adj)**	(284)	(901)	(25)	(74)	312	(134)	(1,105)
26	**Total Adjusted Revenue Requirement**	**9,014**	**6,156**	**180**	**387**	**706**	**502**	16,945
27	Volume (KAF)	31.0	25.0	0.5	1.3	1.0	0.9	60
28								
29	Revenue Requirement per AF	$ 291	$ 246	$ 360	$ 298	$ 706	$ 557	
30	Step 5 - Develop unit costs by customer class							
31	**Adjustments for Agricultural Preservation**							
32	Allocate WU 1% Ad Valorem Prop Tax	-	(3,944)	-	-	-	-	(3,944)
33	Transfer GF 1% Ad valorem Prop Tax	-	(1,281)	-	-	-	-	(1,281)
34	Transfer WS 1% Ad Valorem Prop Tax	-	(474)	-	(343)	-	(464)	(1,281)
35	Revenue Requirement per AF	$ 291	$ 18.3	$ 360	$ 33.6	$ 706	$ 42.1	
36	Step 6 - Rate Design							
37	**Adjustments to Facilitate Conjunctive Use**							
38	Reallocate TW/SW/RW costs	441	-	(20)	-	(421)	-	-
39	Charge per AF	$ 305	$ 18.3	$ 320	$ 34	$ 285	$ 42.1	
40	Total Revenue ($K)	$9,455	$458	$160	$44	$285	$38	10,439

This Page is left intentionally blank

APPENDIX A

WATER UTILITY CHARGE COMPONENTS AND RECOMMENDED CHARGES

Table A-1 Recommended Charge Components for Fiscal Year 2013–14

Component	Charge ($/AF)
Basic User, Zone W-2 (North County)	
Agricultural	18.30
M&I	680.00
Basic User, Zone W-5 (South County/Coyote Valley)	
Agricultural	18.30
M&I	305.00
Treated Water Surcharge	
Contract	100.00
Non-contract	75.00
Surface Water Charge	
Water Master	15.31

Table A-2 Recommended Charge Components for Fiscal Year 2013–14

Type of Charge	AG Water ($/AF)	M&I Water ($/AF)
Groundwater Production		
Zone W-2	$18.30	$680.00
Zone W-5	$18.30	$305.00
Surface Water[1]		
Other Zone W-5 Deliveries[2]	$33.61	$320.31
Other Zone W-2 Deliveries[3]	$33.61	$695.31
Minimum Charge Zone W-5[4]	$13.72	$228.75
Minimum Charge Zone W-2[5]	$13.72	$510.00
Treated Water		
Contract[6]	N/A	$780.00
Non-contract[7]	N/A	$755.00
Recycled Water		
Gilroy	$42.10	$285.00

[1] Surface water charge is the sum of the basic user charge plus the water master charge.
[2] Other Zone W-5 Deliveries = Basic User (AG or M&I @ $18.30/AF or $305.00/AF) + Water Master ($15.31/AF).
[3] Other Zone W-2 Deliveries = Basic User (AG or M&I @ $18.30/AF or $680.00/AF) + Water Master ($15.31/AF).
[4] Minimum Charge W-5 = 0.75 X Basic User W-5 (M&I @ $305.00/AF, AG @ $18.30/AF).
[5] Minimum Charge W-2 = 0.75 X Basic User W-2 (M&I @ $680.00/AF, AG @ $18.30/AF).
[6] Treated Water Charge is the sum of Basic User ($680.00/AF) and Treated Water Surcharge ($100.00/AF).
[7] The charge for non-contract deliveries is the sum of the basic user charge ($680.00/AF) and the treated water surcharge for non-contract water ($75.00/AF).

APPENDIX B

BASIS OF COST ALLOCATIONS BETWEEN NORTH AND SOUTH ZONES (IN THOUSANDS $)

Cost Center	Project #	Project Name	South County Allocation	South County Share	North County Share	Total FY 2014	Basis of Allocation
Source of Supply	91041012	Water Operations Planning	15.5%	49	265	314	Raw Water Deliveries
	91041014	Urban Water Management Plan	11.5%	11	88	100	M&I Water Usage Ratio
	91041018	Groundwater Management Protocols	37.0%	122	208	330	Groundwater Production Ratio
	91061012	Facilities Env Compliance	15.5%	5	28	33	Raw Water Deliveries
	91081007	Dam Safety Program	14.4%	214	1,270	1,484	Program Benefit Calculation
	91101004	Recycled Water Program	5.9%	203	3,230	3,433	Population
	91111001	Water Rights	15.5%	70	382	452	Raw Water Deliveries
	91131004	Imported Water Program	11.0%	551	4,457	5,008	Imported Water Ratio
	91131006	IW San Felipe Division Delvrs	14.8%	3,084	17,753	20,837	Program Benefit Calculation
	91131007	IW South Bay Aqueduct Delvrs	0.0%	-	673	673	No South County Benefit
	91131008	State Water Project Costs	0.0%	-	23,275	23,275	No South County Benefit
	91151001	Water Conservation-Prog Support	5.9%	51	806	856	Population
	91151007	Water Conservation-Residential	4.8%	85	1,687	1,772	Program Benefit Calculation
	91151008	Water Conservation-Commercial/Ind	3.9%	39	949	988	Program Benefit Calculation
	91151009	Water Conservation-AG	97.5%	152	4	156	Ag Production Ratio
	91151010	Water Conservation-Landscape	7.1%	99	1,296	1,395	Program Benefit Calculation
	91151011	Water Conservation Campaign	5.9%	14	222	236	Population
	91181007	SVAWPC Facility Operations	0.0%	-	2,349	2,349	No South County Benefit
	91181008	SVAWPC Facility Maintenance	0.0%	-	926	926	No South County Benefit
	91211004	San Felipe Reach 1 Operation	17.5%	80	379	459	CVP Imported Water Ratio
	91211005	SFD Reach 1 Administration	17.5%	5	22	27	CVP Imported Water Ratio
	91211084	San Felipe Reach1 Ctrl and Ele	17.5%	51	241	292	CVP Imported Water Ratio
	91211085	SF Reach 1-Engineering - Other	17.5%	23	108	131	CVP Imported Water Ratio
	91211099	San Felipe Reach 1 Gen Maint	17.5%	122	575	696	CVP Imported Water Ratio
	91221002	San Felipe Reach 2 Operation	17.5%	7	35	43	CVP Imported Water Ratio
	91221006	SF Reach 2-Engineering - Other	17.5%	11	51	61	CVP Imported Water Ratio
	91221099	San Felipe Reach 2 Gen Maint	17.5%	25	120	146	CVP Imported Water Ratio
	91231002	San Felipe Reach 3 Operation	17.5%	16	168	184	CVP Imported Water Ratio
	91231084	San Felipe Reach3 Ctrl and Ele	17.5%	26	271	297	CVP Imported Water Ratio
	91231085	SF Reach 3-Engineering - Other	17.5%	7	76	83	CVP Imported Water Ratio
	91231099	San Felipe Reach 3 Gen Maint	17.5%	97	639	736	CVP Imported Water Ratio
	91441003	Desalination	11.5%	7	54	61	M&I Water Usage Ratio
	91451002	Well Ordinance Program	7.9%	95	1,107	1,202	Well Permits and Inspections
	91451005	Source Water Quality Mgmt	11.5%	44	340	384	M&I Water Usage Ratio
	91451011	Invasive Mussel Prevention	15.5%	98	532	629	Raw Water Deliveries
	91452042	Salt & Nutrient MP	37.0%	46	78	123	Groundwater Production Ratio
	91551001	Groundwater Monitoring	37.0%	301	513	814	Groundwater Production Ratio
	91551002	Groundwater Supply Managemen	37.0%	351	598	949	Groundwater Production Ratio
	91761001	Local Res / Div Plan & Analysis	20.0%	112	448	560	Total Water Deliveries Ratio
	91761002	Local Reservoir/Diversion Ops	20.0%	36	143	179	Total Water Deliveries Ratio
	91761099	Dams / Reservoir Gen Maint	22.0%	344	1,218	1,562	Program Benefit Calculation
	91791012	Groundwater Quality Management	37.0%	370	631	1,001	Groundwater Production Ratio
	91792001	Domestic Well Testing Program	100.0%	374	-	374	Benefits only South County
				7,395	**68,214**	**75,609**	

BASIS OF COST ALLOCATIONS BETWEEN NORTH AND SOUTH ZONES (IN THOUSANDS $) ... CONTINUED

Cost Center	Project #	Project Name	South County Allocation	South County Share	North County Share	Total FY 2014	Basis of Allocation
Raw Water Transmission & Distribution	92041014	FAHCE/Three Creeks HCP Project	4.3%	78	1,728	1,805	Coyote Water Supply Ratio
	92061012	Facilities Env Compliance	15.5%	9	51	61	Raw Water Deliveries
	92261099	Vasona Pump Station Gen Main	0.0%	-	120	120	No South County Benefit
	92761001	Raw Water T and D Genrl Oper	15.5%	180	982	1,163	Raw Water Deliveries
	92761006	Rchrg / RW Field Fac Asset Mgt	37.7%	73	120	193	Groundwater Recharge Ratio
	92761007	Rchrg / RW Field Ops Pln& Anlys	37.7%	90	149	239	Groundwater Recharge Ratio
	92761008	Recycled Water T&D Genrl Maint	100.0%	78	-	78	Benefits only South County
	92761009	Recharge/RW Field Ops	37.7%	1,056	1,745	2,802	Groundwater Recharge Ratio
	92761010	Rchrg / RW Field Fac Maint	37.7%	493	815	1,309	Groundwater Recharge Ratio
	92761011	Untreated Water Field Ops	43.1%	20	26	45	Untreated Water Deliveries Ratio
	92761012	Untreated Water Prog Plan&Analysis	43.1%	15	19	34	Untreated Water Deliveries Ratio
	92761082	Raw Water T&D Ctrl and Electr	15.5%	98	535	633	Raw Water Deliveries
	92761083	Raw Water T&D Eng Other	15.5%	33	181	214	Raw Water Deliveries
	92761085	Anderson Hydrelctrc Fclty Main	20.8%	46	175	221	Anderson Water Deliveries Ratio
	92761099	Raw Water T / D Gen Maint	15.5%	195	1,062	1,257	Raw Water Deliveries
	92781002	RW Corrosion Control	15.5%	56	307	364	Raw Water Deliveries
		FAHCE	0.0%	-	-	-	No South County Benefit
				2,521	**8,017**	**10,537**	
Water Treatment and Treated Water Transmission & Distribution	93061012	Facilities Env Compliance	0.0%	-	392	392	No South County Benefit
	93081008	W T General Water Quality	0.0%	-	1,606	1,606	No South County Benefit
	93081009	Water Treatment Plant Engineering	0.0%	-	491	491	No South County Benefit
	93231007	PWTP Landslide Monitoring	0.0%	-	61	61	No South County Benefit
	93231009	PWTP General Operations	0.0%	-	4,273	4,273	No South County Benefit
	93231099	Penitencia WTP General Maint	0.0%	-	2,750	2,750	No South County Benefit
	93281005	STWTP - General Operations	0.0%	-	4,930	4,930	No South County Benefit
	93281099	Santa Teresa WTP General Maint	0.0%	-	2,042	2,042	No South County Benefit
	93291012	RWTP General Operations	0.0%	-	6,426	6,426	No South County Benefit
	93291099	Rinconada WTP General Maint	0.0%	-	3,065	3,065	No South County Benefit
	93401002	Water District Laboratory	0.6%	20	3,523	3,544	Lab Analyses
	93761001	SF/SCVWD Intertie General Ops	0.0%	-	154	154	No South County Benefit
	93761004	Campbell Well Field Operations	0.0%	-	300	300	No South County Benefit
	93761005	Campbell Well Field Maintenance	0.0%	-	64	64	No South County Benefit
	93761006	Treated Water Ctrl & Elec Eng	0.0%	-	2,316	2,316	No South County Benefit
	93761099	SF/SCVWD Intertie Gen Maint	0.0%	-	113	113	No South County Benefit
	94761005	TW T&D - Engineering - Other	0.0%	-	177	177	No South County Benefit
	94761099	Treated Water T/D Gen Maint	0.0%	-	926	926	No South County Benefit
	94781001	Treated Water T/D Corrosion	0.0%	-	357	357	No South County Benefit
				20	**33,965**	**33,985**	

BASIS OF COST ALLOCATIONS BETWEEN NORTH AND SOUTH ZONES (IN THOUSANDS $) ... CONTINUED

Cost Center	Project #	Project Name	South County Allocation	South County Share	North County Share	Total FY 2014	Basis of Allocation
Administration & General	95001090	Unscoped Projects-Budget Only	11.5%	14	111	125	M&I Water Usage Ratio
	95011003	WU Asset Protection Support	20.0%	175	700	875	Program Benefit Calculation
	95021008	Electrical Power Support	1.5%	3	172	175	Labor Hours
	95021009	Pipeline Monumentation	11.5%	14	111	125	M&I Water Usage Ratio
	95031002	Grants Management	11.5%	10	77	87	M&I Water Usage Ratio
	95041039	Integrated Regional Water Mgmt	11.5%	13	104	117	M&I Water Usage Ratio
	95041046	Survey Record Mgmt & Sucession	11.5%	7	54	61	M&I Water Usage Ratio
	95061007	WUE Asset Management Plng Prgm	1.5%	12	823	835	Program Benefit Calculation
	95061012	Rental Expense San Pedro,MH	100.0%	26	-	26	Benefits only South County
	95061027	Water Utility Health & Safety	11.5%	38	294	333	M&I Water Usage Ratio
	95061032	Water Utility Ops Safety Training	11.5%	77	593	670	M&I Water Usage Ratio
	95061037	WUE Training & Development	11.5%	79	604	683	M&I Water Usage Ratio
	95061038	WUE Administration	11.5%	774	5,959	6,734	M&I Water Usage Ratio
	95061041	WU As-Built Drawing Control	11.5%	17	130	147	M&I Water Usage Ratio
	95061043	WUE ER Response Plan & Implement	5.9%	13	210	223	Population
	95061045	AM Framework Implementation	11.5%	38	293	331	M&I Water Usage Ratio
	95061046	District CMMS Administration	11.5%	51	392	443	M&I Water Usage Ratio
	95061054	Safe Clean Water Implementation	11.5%	9	69	78	M&I Water Usage Ratio
	95062012	WUE Maint Audit Impl Plan	1.5%	4	274	278	Program Benefit Calculation
	95071041	Welding Services	1.4%	3	220	223	Program Benefit Calculation
	95101003	W2 W5 Wtr Revenue Program	69.0%	763	343	1,106	Labor Hours
	95111003	Water Use Measurement	35.0%	497	924	1,421	Labor Hours
	95121001	Fin/Economic Water Rate Stud	11.5%	54	418	472	M&I Water Usage Ratio
	95151002	Water Utility Customer Relations	5.9%	9	141	150	Population
	95731001	Water Supply Modeling/Analys	11.5%	41	319	361	M&I Water Usage Ratio
	95741001	WUE Long-term Planning	11.5%	26	197	223	M&I Water Usage Ratio
	95741042	Water Resources EnvPlng & Permtg	18.0%	110	501	612	Program Benefit Calculation
	95761003	SCADA Network Administration	2.0%	3	139	142	Program Benefit Calculation
	95761071	Emergency Preparedness Prog	5.9%	45	721	766	Population
	95761072	Business Continuity Program	5.9%	8	127	135	Population
	95771011	District Urban Runoff Program	15.5%	62	336	398	Raw Water Deliveries
	95771031	HAZMAT Emergency Response	10.0%	9	80	89	Emergency Response Events
	95811043	Hydrologic Data Msrmt & Mgmt	21.2%	175	652	827	Stream Gauge location
	95811046	Warehouse Services	11.5%	51	393	444	M&I Water Usage Ratio
	95811049	X Valley Level / Benchmark	4.7%	6	119	125	Program Benefit Calculation
	95811050	Benchmark Maintenance (Countywide)	33.3%	30	60	90	Benchmark Maintenance
	95811054	District Real Property Administration	0.5%	1	107	108	Program Benefit Calculation
				3,269	**16,767**	**20,035**	
		TOTAL		13,205	126,962	140,167	

Note: Projects 91231002, 91231084, 912341085, and 91231099 have been adjusted for the Coyote Pumping Plant costs.

APPENDIX C
SOUTH COUNTY CAPITAL COST RECOVERY

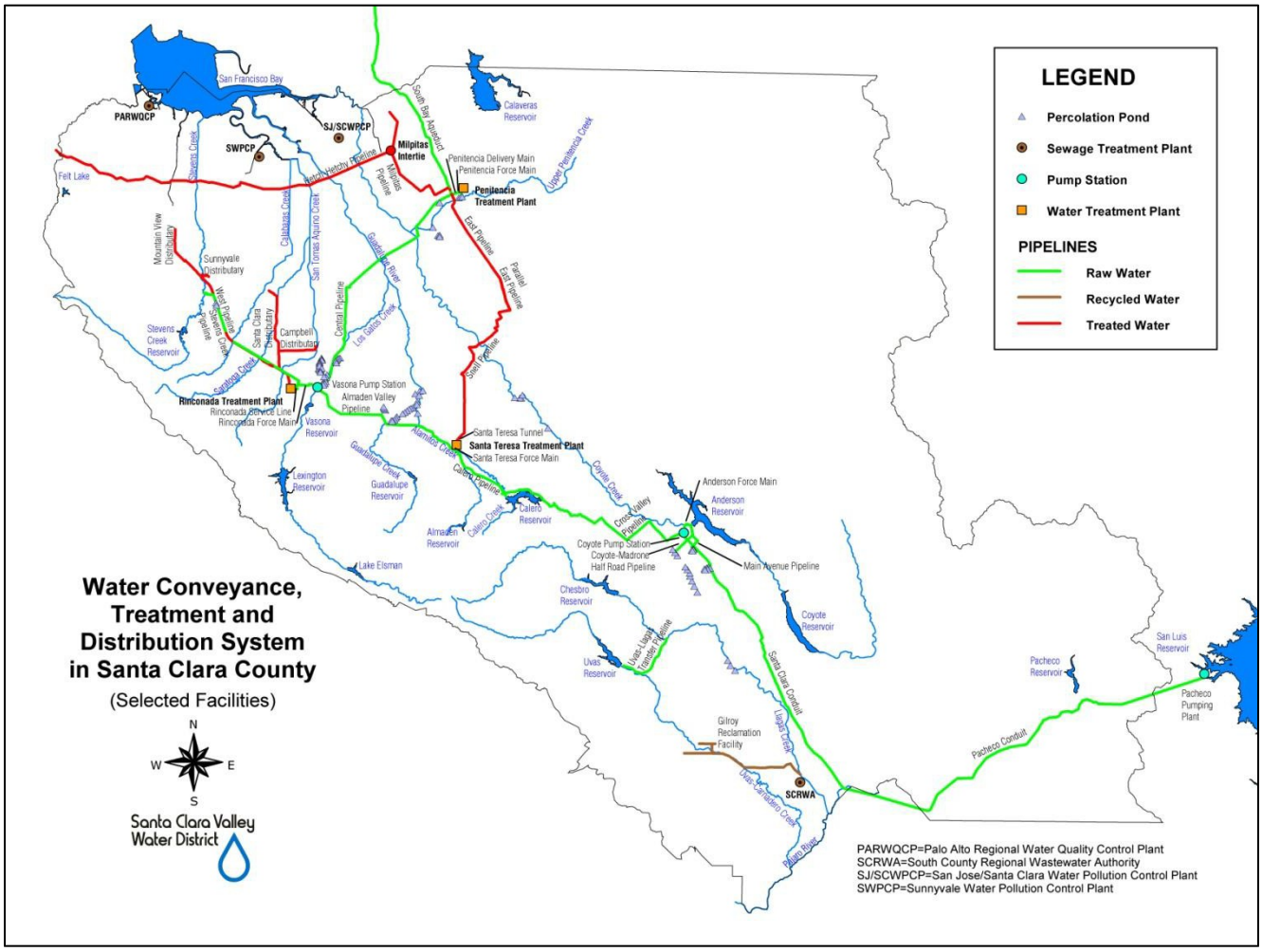
(In Thousands $)						
Job Description	Total Project Cost	South County %	South County Cost	FY 14 Cost Recovery*	Year Cost Recovery is Complete	Basis of Allocation to the South
Uvas Reservoir Valves Replace	$ 303	100.0%	$ 303	$ 25	FY 14	Benefits only South County
Madrone Pipeline Replace	$ 389	100.0%	$ 389	$ 31	FY 14	Benefits only South County
Uvas Dam & Reservoir	$ 1,124	100.0%	$ 1,124	$ 88	FY 22	Benefits only South County
San Pedro Recharge Facility	$ 1,882	100.0%	$ 1,882	$ 147	FY 22	Benefits only South County
San Pedro Recharge house	$ 700	100.0%	$ 700	$ 47	FY 31	Benefits only South County
Recycled Water Improvements I	$ 7,232	100.0%	$ 7,232	$ 481	FY 32	Benefits only South County
Recycled Water Improvements II	$ 118	100.0%	$ 118	$ 8	FY 33	Benefits only South County
Recycled Water Improvements III	$ 1,721	100.0%	$ 1,721	$ 115	FY 34	Benefits only South County
Water Banking Rights	$ 6,226	8.0%	$ 498	$ 33	FY 35	Total Imported Water Ratio
Dam Instrumentation	$ 6,243	21.0%	$ 1,311	$ 87	FY 41	Program benefit calculation
Geodetic Control Maintenance	$ 236	41.0%	$ 97	$ 6	FY 36	Survey Analysis
SC Recycled Water Masterplan - Immediate Term	$ 3,257	100.0%	$ 3,257	$ 216	FY 37	Benefits only South County
SC Recycled Water Masterplan - Short Term Implementation 1A	$ 4,348	100.0%	$ 4,348	$ 288	FY 42	Benefits only South County
Water Banking FY 06	$ 18,895	9.0%	$ 1,701	$ 113	FY 36	Total Imported Water Ratio
San Felipe Division Capital	$ 7,650	11.8%	$ 903	$ 903	N/A	Repayment Cost Distribution
Pacheco Pumping Plant Regulating Tank Recoating	$ 2,826	17.0%	$ 480	$ 32	FY 42	CVP Imported Water Ratio
San Felipe Communications Cable Replacement	$ 235	17.0%	$ 40	$ 3	FY 42	CVP Imported Water Ratio
Small Caps, San Felipe	$ 970	17.5%	$ 110	$ 110	N/A	CVP Imported Water Ratio
Santa Clara Tunnel Landslide	$ 4,509	15.1%	$ 681	$ 45	FY 39	CVP Imported Water Ratio
SC Tunnel Landslide Mitigation	$ 217	16.9%	$ 37	$ 2	FY 39	CVP Imported Water Ratio
Small Caps, San Felipe Reach 3	$ 1,731	17.5%	$ 303	$ 303	N/A	CVP Imported Water Ratio
Water Infrastructure Reliability Program	$ 2,134	1.5%	$ 32	$ 2	FY 36	Program benefit calculation
Water Infrastructure Baseline Improvement	$ 2,403	3.6%	$ 87	$ 6	FY 38	Spare pipe usage
Coyote Dam Control Building Improvement	$ 630	19.6%	$ 123	$ 8	FY 42	Anderson deliveries ratio
Radio Repeater Infill	$ 5,423	11.5%	$ 624	$ 0	FY 42	M&I Water Usage Ratio
Santa Clara Conduit Rehab	$ 1,814	17.5%	$ 317	$ 21	FY 42	CVP Imported Water Ratio
Raw Water Control System	$ 9,188	4.3%	$ 399	$ 26	FY 37	Program benefit calculation
Small Caps, Raw Water	$ 265	15.5%	$ 41	$ 41	N/A	Raw Water Usage
Pipeline Hydraulic Reliability Upgrades	$ 322	2.0%	$ 6	$ 0	FY 43	Program benefit calculation
Information Systems Management	$ 5,802	9.8%	$ 569	$ 38	FY 40	M&I Water Usage Ratio
Peoplesoft Upgrade	$ 78	9.8%	$ 8	$ 1	FY 39	M&I Water Usage Ratio
Corp Yard Relocation	$ 26	10.2%	$ 3	$ 0	FY 40	M&I Water Usage Ratio
Capital Program Administration	$ 3,469	7.1%	$ 248	$ 248	N/A	Total Capital Cost Ratio
Grand Total	$ 102,364		$ 29,691	$ 3,474		

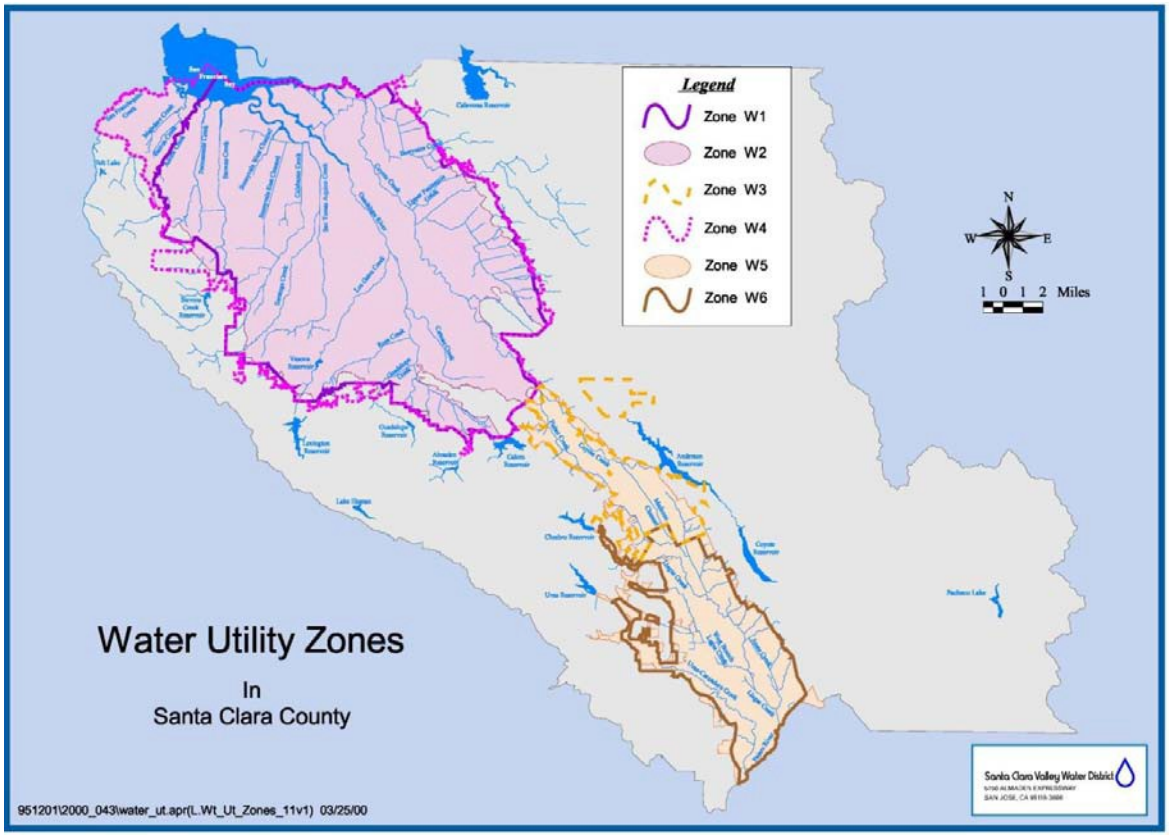
* Capital projects that benefit South County are paid for over the life of the project (typically 30 years) beginning when the project is completed

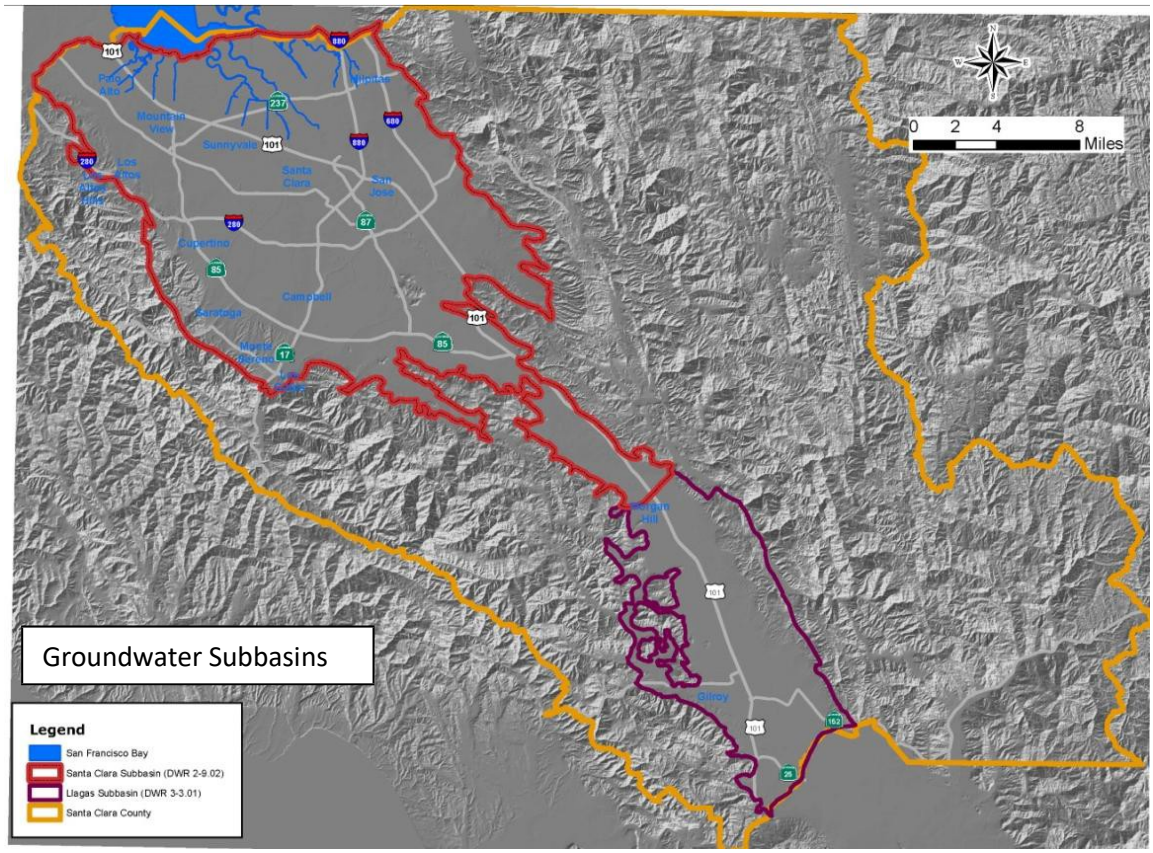
APPENDIX D
ACRONYMS

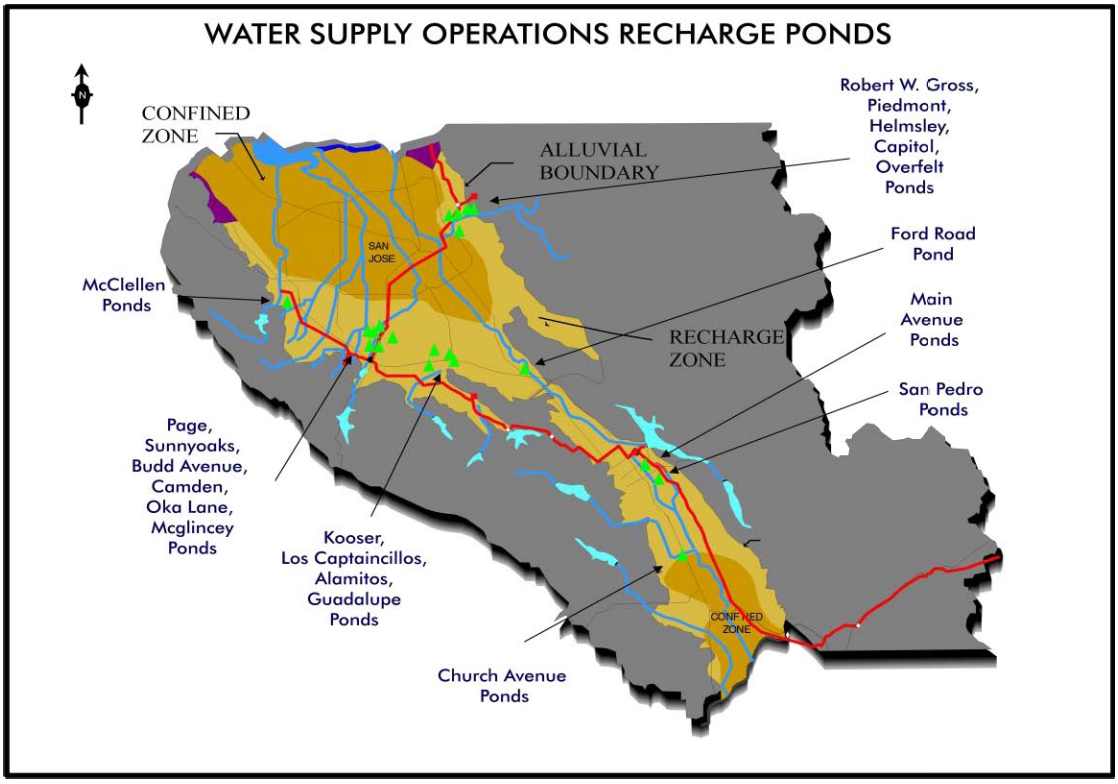
ABAG	Association of Bay Area Governments
AF	Acre Feet
AG	Agriculture
BDCP	Bay Delta Conservation Plan
board	Board of Directors
CALPERS	California Public Employees Retirement System
CESA	California Endangered Species Act
CIP	Capital Improvement Program
CVP	Central Valley Project
DWR	Department of Water Resources
ESA	Endangered Species Act
FWS	Fish and Wildlife Service
FY	Fiscal Year
GW	Groundwater
HCP	Habitat Conservation Plan
Llagas Subbasin	Groundwater Subbasin as defined by DWR bulletin 118-2003 and as shown in map of Groundwater Subbasins, area south of Cochrane Road
M&I	Municipal and Industrial
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
North County	Northern Santa Clara County, north of Metcalf Road
RFC	Raftelis Financial Consultants, Inc.
RW	Recycled Water
SCADA	Supervisory Control and Data Acquisition
SFPUC	San Francisco Public Utilities Commission
SJWC	San Jose Water Company
SWP	State Water Project
SW	Surface Water
Santa Clara Subbasin	Groundwater Subbasin as defined by DWR bulletin 118-2003 and as shown in map of Groundwater Subbasins, area north of Cochrane Road and includes Coyote Valley
South County	Southern Santa Clara County, south of Metcalf Road
Three Creeks HCP	Three Creeks Habitat Conservation Plan
TW	Treated Water
USBR	United States Bureau of Reclamation
UWMP	Urban Water Management Plan
Valley HP	Santa Clara Valley Habitat Plan
Zone W-2	Charge zone W-2, as defined by zone boundary in map of Water Utility Zones
Zone W-5	Charge zone W-5, as defined by zone boundary in map of Water Utility Zones
water district	Santa Clara Valley Water District
Water Master Plan	Water Supply & Infrastructure Master Plan

APPENDIX E
MAPS



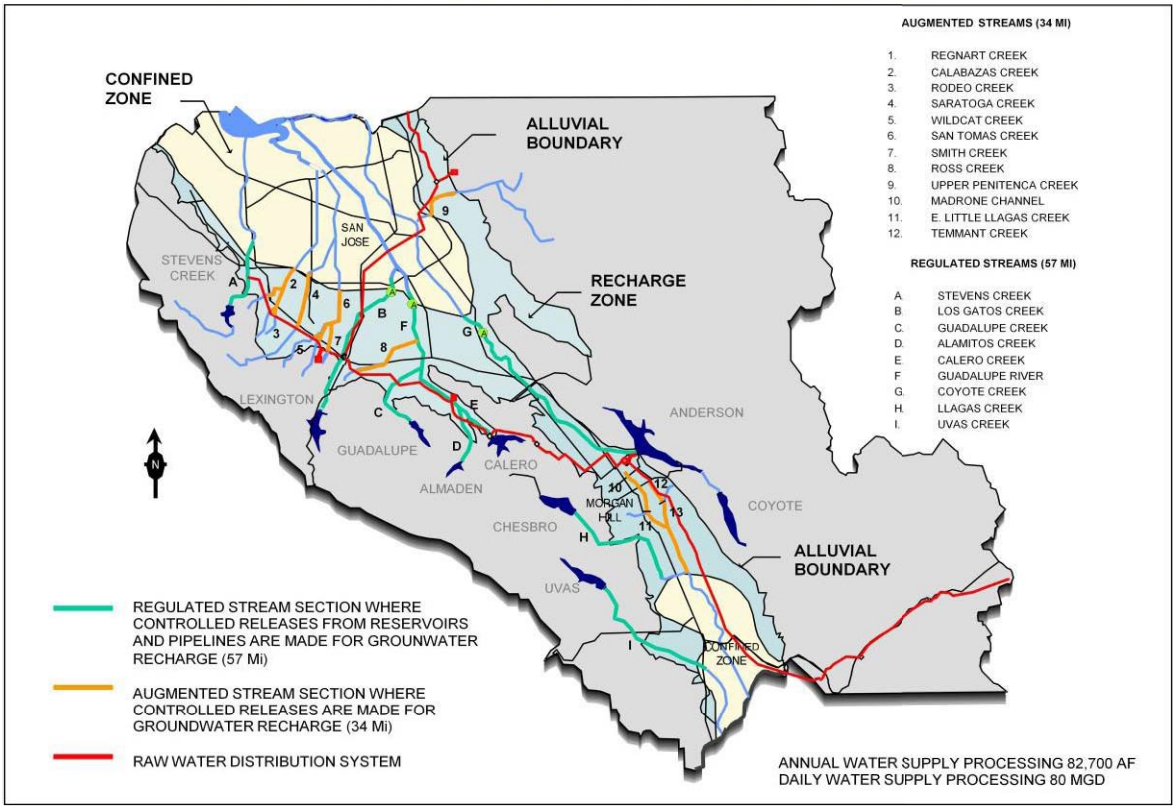

Legend
Zone W1
Zone W2
Zone W3
Zone W4
Zone W5
Zone W6
N
W
E
S
1 0 1 2 Miles
Water Utility Zones
In
Santa Clara County
Santa Clara Valley Water District
951201\2000_043\water_ut.apr(L.Wt_Ut_Zones_11v1) 03/25/00


0 2 4 8 Miles
Groundwater Subbasins
Legend
San Francisco Bay
Santa Clara Subbasin (DWR 2-9.02)
Llagas Subbasin (DWR 3-3.01)
Santa Clara County



Water Supply Operations In-Stream Recharge

91 MILES OF REGULATED AND UNREGULATED AUGMENTED STREAMS WHERE FLOW IS MANAGED BY WATER SUPPLY FOR INSTREAM GROUNDWATER RECHARGE



This page is left intentionally blank



Santa Clara Valley Water District

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3686
Phone: (408) 265-2600
Fax: (408) 266-0271
www.valleywater.org

© 2013 Santa Clara Valley Water District | February, 2013 - JL